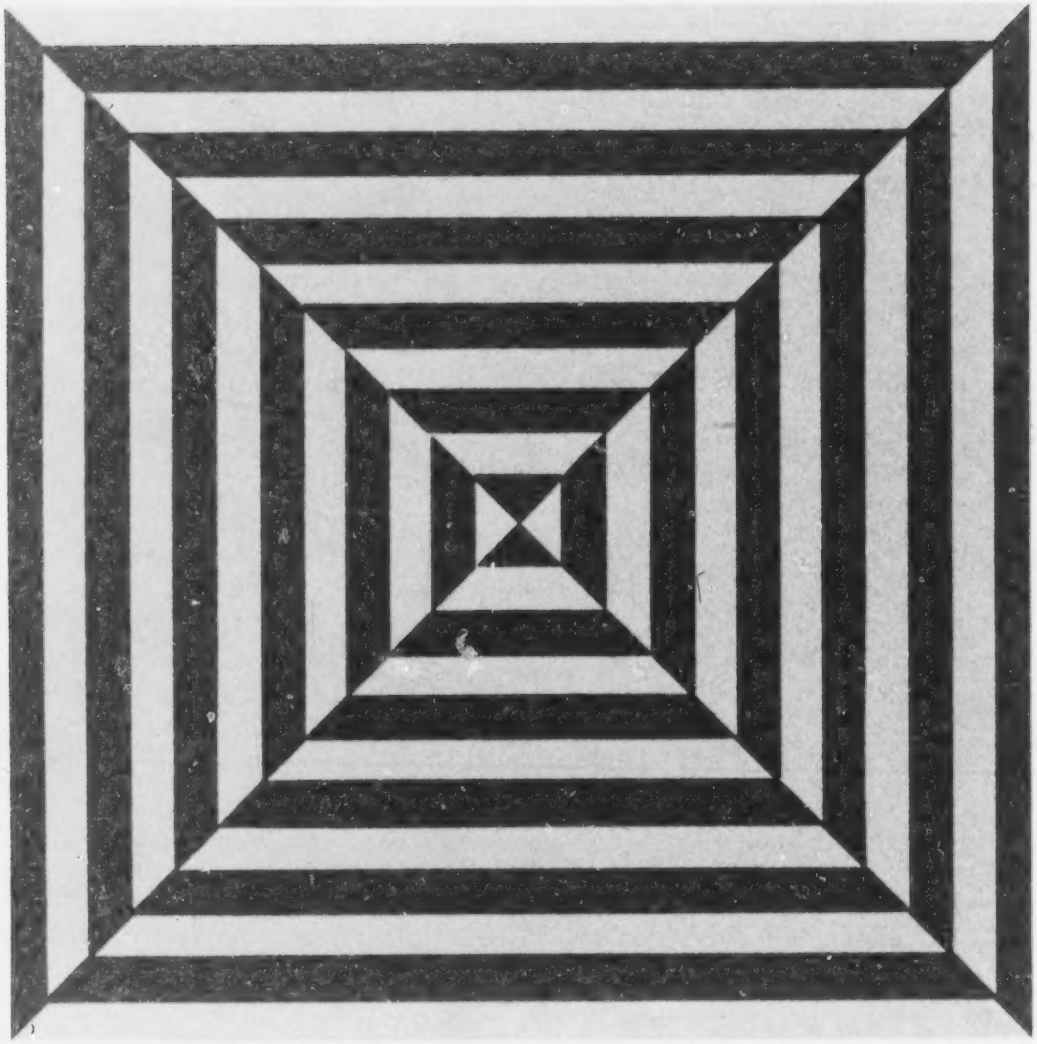
A 1410-131-4
10/7/88

CAMPUS TRENDS, 1988

Elaine El-Khawas



HIGHER EDUCATION PANEL REPORT NUMBER 77 SEPTEMBER 1988

American Council on Education

AMERICAN COUNCIL ON EDUCATION

Robert H. Atwell, President

The American Council on Education, founded in 1918, is a council of educational organizations and institutions. Its purpose is to advance education and educational methods through comprehensive voluntary and cooperative action on the part of American educational associations, organizations and institutions.

The Higher Education Panel is a survey research program established by the Council for the purpose of securing policy-related information quickly from representative samples of colleges and universities. Higher Education Panel Reports are designed to expedite communication of the Panel's survey findings to policy-makers in government, in the associations, and in educational institutions across the nation.

CAMPUS TRENDS ADVISORY COMMITTEE

James W. Firnberg, *Chancellor*, Louisiana State University at Alexandria

Robert T. Greene, *Provost*, J. Sargeant Reynolds Community College

L. Jackson Newell, *Professor* and *Dean*, University of Utah

Leroy Keith, Jr., *President*, Morehouse College

David Payne, *Vice President for Academic Affairs*, Sangamon State University

Rose Marie Beston, *President*, Nazareth College of Rochester

Donald Adams, *Vice President for Enrollment Management and Student Life*, Drake University

Maryly VanLeer Peck, *President*, Polk Community College

Cassandra H. Courtney, *Vice President for Academic Affairs*, Wilberforce University

Magdalen Coughlin, CSJ, *President*, Mount St. Mary's College (CA)

Jack E. Rossmann, *Professor of Psychology*, Macalester College

Helen Trimble, *Vice President for Academic Affairs and Dean*, Emmanuel College

This report is not copyrighted. It may be reproduced in whole or in part in the interest of education.

To request copies, please send a check, payable to the American Council on Education, to: Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, N.W., Washington, D.C. 20036-1193.

$5.00/copy (ACE Members)
$8.00/copy (Non-ACE Members)

Prepaid orders only. Sorry, we cannot accept purchase orders.

Campus Trends, 1988

Elaine El-Khawas

Higher Education Panel Reports
Number 77 September 1988

American Council on Education
Washington, D.C. 20036

TABLE OF CONTENTS

	Page
Acknowledgements	iv
List of Figures	v
List of Tables	v
Highlights	vi
Introduction	viii
Findings	
I. Enrollment	1
II. Financial Status	3
III. College and University Faculty	6
IV. Assessment	7
V. Curriculum Change	10
VI. Important Challenges Ahead	12
Conclusion	13
References	14
Tables	15
Appendix A: Survey Questionnaire	30
Appendix B: Technical Notes	34

ACKNOWLEDGEMENTS

This survey is part of a continuing ACE project to monitor and report on changing practices in higher education. The guidance of the Campus Trends Advisory Committee is especially important to the preparation of this report. Their role in suggesting questions and in offering their own perspective on the survey results has been very helpful.

Warm thanks are also extended to ACE staff for their cheerful and efficient contributions to the survey, especially Rosa Lott-Hawkins, Boichi San, and Charles Andersen. We wish to express our special gratitude to the Panel's campus representatives and survey respondents for their assistance and cooperation.

LIST OF FIGURES

		Page
Figure 1.	Yearly Increases in Enrollment	2
Figure 2.	Yearly Increases in Minority Enrollment	2
Figure 3.	Expected Tuition Increases, Fall 1988 and Fall 1989	5
Figure 4.	Net Gains in Full-time Faculty	6
Figure 5.	Administrator Views on Assessment	9
Figure 6.	Required Courses in General Education	12

LIST OF TABLES

		Page
Table 1.	Changes in Enrollment (FTE) since 1980	17
Table 2A.	Major Factors Affecting Enrollment since 1980	17
Table 2B.	Major Factors Affecting Enrollment since 1980: Those with enrollment increases	18
Table 2C.	Major Factors Affecting Enrollment since 1980: Those with enrollment decreases	18
Table 3.	Changes in Enrollment, AY 87 vs. AY 88	19
Table 4.	Expected Changes in Enrollment, Next Five Years	19
Table 5.	Changes in College Finances, AY 87 to AY 88	20
Table 6.	Changes in the Share of Budget Required by Various Expenses	20
Table 7.	Expected Tuition Increases, AY 89 and AY 90	21
Table 8.	Administrator Views on Institutional Status	22
Table 9.	Patterns of Faculty Hiring	23
Table 10.	Current and Expected Shortages of Faculty, by Subject Area	24
Table 11.	Percentage with Tenure, and Use of Part-time Faculty	25
Table 12.	Faculty Retirement Patterns and Practices	25
Table 13.	Current Status of Student Assessment	26
Table 14.	Attitudes on Student Assessment	27
Table 15.	Areas of Student Learning being Assessed	28
Table 16A.	Assessment Procedures Now In Use	29
Table 16B.	Assessment Procedures that are Planned	30
Table 17.	Curriculum Change since 1980	31
Table 18.	Admissions and Graduation Requirements	32
Table 19A.	General Education Requirements for all Students	33
Table 19B.	General Education Requirements for all or for some Students	34
Table 20.	Important Challenges in the Next Five Years	35
Table 21.	Important Challenges in the Next Five Years: Subcategories	35

HIGHLIGHTS

Campus Trends, 1988 is the fifth in an annual series of surveys designed to provide timely information on changes taking place in the academic and administrative practices of American colleges and universities. The surveys are conducted by the American Council on Education.

For this year's report, special attention was given to recent enrollment changes as they have affected colleges and universities. Special attention was also given to college and university faculty, in light of significant shortages predicted for the next decade.

All results are reported by type and control of institution. For many questions, comparisons are made between responses given in this year's survey and those given when the same questions were asked in previous *Campus Trends* surveys.

Highlights from the survey are as follows:

Enrollment

The enrollment picture for American colleges and universities has been a positive one throughout the 1980s, despite predictions of lower enrollment.

- A majority of institutions—54 percent—had net increases in enrollment since 1980.
- For the 1987–88 academic year, the majority of American colleges and and universities reported enrollment gains. A majority also reported increases in first-time freshmen.
- At the same time, 4 in 10 institutions had net decreases in their enrollment since 1980.
- Progress regarding enrollment of minority students was quite modest in 1987–88: about one in four institutions had increased their enrollment of Black, Hispanic or Asian students.
- Two-thirds of campus administrators rated their institution's performance in attracting minority students as "fair" or "poor".
- Most colleges and universities expect to continue to "outsmart" the demographics. Fully 7 in 10 administrators expect enrollment increases for their institutions over the next five years.

Financial Status

- Only 57 percent of two-year public institutions and 67 percent of four-year public institutions received increased revenues from state and local governments, their primary source of financial support.
- At 4 in 10 independent colleges and universities, the institution's level of indebtedness increased in the last year.
- In 1987–88, only about half of American colleges and universities reported increased income from gift sources.
- Only 4 in 10 institutions reported any increase in income from endowment in the past year. Just over half of the institututions in the independent sector reported increased income from endowment.
- In 1988, fewer than half—44 percent—of college administrators considered their institution's overall financial condition to be "excellent" or "very good."
- Another 18 percent gave their institutions very low ratings—"fair" or "poor"—on financial health.

A major issue facing administrators of colleges and universities today is how to keep their institutions affordable.

- In 1988, over half (55 percent) of administrators at independent institutions reported an increase in the share of costs that students and parents must pay; a year ago, 38 percent had reported that the share paid by students and parents had increased.
- Similarly, 53 percent of administrators at public four-year institutions reported an increase over the last year in the share of costs paid by parents and students.

Most institutions have responded to this growing affordability gap by increasing their expenditures from the institution's own funds to provide financial assistance to needy students.

- Fully 8 in 10 independent institutions increased their budgets for institutionally funded student aid in the last year.
- Fifty-four percent of public four-year institutions reported increases in the budget for institutionally funded student aid.

A good deal of variation among different types of institutions is masked by national data on "average" tuition increases.

- Only 27 percent of colleges and universities reported tuition increases for fall 1988 that are higher than 6 to 7 percent.
- Another one in four colleges and universities are increasing tuition by 6 to 7 percent.
- About half of colleges and universities have 1988 tuition increases that are at or below 5 percent.
- When asked to guess what tuition increases might be for a year ahead (fall 1989), more than half predicted tuition increases of 5 percent or less.

Faculty

- Half of American colleges and universities reported **net gains** in their number of full-time faculty in the last year.
- However, 25 percent of colleges and universities reported a net gain in minority faculty in the last year.
- About half of the campuses reported no net change in the representation of women among their faculty, and 9 percent reported a net loss of women faculty.
- The average percentage of faculty holding tenure in 1987–88 was 62 percent.
- Shortages exist in certain fields. About 6 in 10 colleges and universities reported current shortages of faculty in computer sciences. Shortages in busi-

ness were reported by half of the institutions. One-third of all institutions were unable to fill vacant positions in mathematics.

- About 4 in 10 institutions reported greater difficulty in getting top applicants to accept positions offered to them. In 1987, 25 percent had reported this difficulty.
- Colleges and universities are not expecting an increased rate of faculty retirements over the next few years and only a few have procedures to anticipate changes in retirement rates.
- Phased retirement options are relatively rare: only 18 percent of colleges and universities offer such options to their faculty.

Assessment

Campuses are paying substantial attention to assessment.

- About half of institutions have some form of assessment activities underway.
- About 6 in 10 institutions have discussions taking place about assessment.
- Three-quarters of administrators expect some form of assessment to be introduced on their campuses in the next few years.

Certain assessment issues are less troubling than they were a year ago.

- In 1988, one-third of administrators agreed that it was not clear what to assess, a decline from the 47 percent who agreed with that statement in 1987.
- One-third agreed in 1988 that there are no good assessment instruments, down from the 42 percent who agreed with this statement in 1987.
- There is increased support for the use of measures of institutional effectiveness in the accreditation process: almost 8 in 10 administrators supported such use in 1988, up from 64 percent in 1986.

Concern about misuse of assessment results has increased over the last two years.

- Fully 8 in 10 administrators agreed that "most campus officials have strong fears about misuse of effectiveness measures by external agencies."
- About 6 in 10 administrators agreed that the use of nationally standardized tests for student assessment "risks distorting the educational process."
- Close to half of the institutions reported that they were developing their own instruments for assessment.
- About one in four institutions reported that they were collaborating with other colleges and universities on their assessment activities.

Curriculum Changes

Extensive curriculum change has taken place in the 1980s at American colleges and universities. In 1988, more than 9 out of 10 colleges and universities had recently completed or were in the midst of curriculum change. Major changes have included:

- Greater emphasis on improving the writing skills of students (reported by 85 percent of institutions)
- New general education requirements (reported by 74 percent of institutions)
- New ways to involve students in internships (reported by 65 percent of institutions)
- Greater emphasis on analytical or critical thinking (reported by 60 percent of institutions)
- Greater emphasis on the freshman year (reported by 59 percent of institutions)
- New ways to assess student progress and learning (reported by 58 percent of institutions)

A general trend in academe is toward more structured academic requirements.

- Placement tests for entering students are prevalent today. About two-thirds of institutions require placement testing in English, writing, and mathematics for all students; the others require some students to have placement tests.
- Almost all institutions today (almost 9 in 10) require all of their students to complete coursework in general education, compared to three-quarters of institutions in 1984.
- More institutions today (about half) have writing proficiency requirements that all students must meet prior to graduation.
- Just over half of institutions offer a mix of integrative courses and distribution requirements as the general education component of the curriculum.

Challenges

As part of the survey, college administrators were asked to name the three most important challenges facing their institution over the next five years.

- Issues of program quality were mentioned most often, by 68 percent of administrators. Issues included:

  Strengthening the curriculum
  Implementing assessment programs
  Maintaining program quality with limited resources
  Serving new needs and populations

Other issues also appeared:

- Enrollment challenges will be important for most institutions, primarily to maintain enrollment levels in light of continuing demographic changes.
- The need for adequate financial support is another major challenge, mentioned by 55 percent of administrators.
- Improving racial and ethnic diversity was one of the most important challenges in the years ahead for 1 in 10 institutions. Most responses were couched in terms of increasing the number of minority students and faculty at the college.
- Faculty concerns were cited as a major challenge by about one in four administrators, especially issues related to faculty hiring or faculty vitality and effectiveness.

Campus Trends 1988 is available by ordering from: Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, Washington, D.C. 20036. Copies are $5 for ACE members, $8 for nonmembers (Prepaid orders only, please).

INTRODUCTION

This report marks the fifth year in which the American Council on Education has issued *Campus Trends*, based on an annual survey of changes taking place in the academic and administrative practices of American colleges and universities.

The survey was conducted through the Higher Education Panel, a survey research program of the American Council on Education. Questionnaires were completed by senior administrators—chief academic officers, primarily—at 367 colleges and universities (80 percent of a sample of 456 colleges and universities). Responses are statistically adjusted so that results are representative of all American colleges and universities that offer undergraduate instruction.

For this year's report, special attention was given to recent enrollment changes as they have affected colleges and universities. Changes since 1980 are examined, along with administrator opinions about the major factors accounting for their enrollment gains or losses. The report documents a strong record of continued enrollment growth, affecting all sectors of higher education:

- A majority of colleges and universities had net increases in enrollment since 1980. One-third had sizeable increases (of 10 percent or more).
- In the last year, more campuses had enrollment increases—and fewer had enrollment decreases—than in any of the previous three years.

Reflecting an optimistic stance, fully 7 in 10 college administrators expected enrollment increases for their institutions over the next five years.

Special attention was also given to college and university faculty, in light of significant shortages predicted for the next decade. The report shows that some colleges and universities are already experiencing problems in filling faculty positions, especially in certain high-demand teaching fields.

As with previous *Campus Trends* studies, this report documents changes in college practices in a variety of other areas, including changes in college revenues, expenditures, and tuition levels; faculty hiring and tenure levels; curriculum changes; admissions and graduation requirements; and assessment activities. The report documents, for instance:

- Evidence of a strengthened curriculum, especially in attention paid to writing skills and other general education requirements;
- Considerable attention to methods of assessing student learning;
- Substantial financial pressures confronting both public and independent institutions; and
- Wide differences among institutions in the levels of tuition increases set for 1988–1989.

Findings are organized by subject. Detailed tables, showing results by type of institution, follow the text. For many questions, comparisons are made between responses given in this year's survey and those given when the same questions were asked in previous *Campus Trends* surveys.

FINDINGS

I. Enrollment

Enrollment Changes since 1980

The enrollment picture for American colleges and universities has been a positive one throughout the 1980s, despite predictions of lower enrollment. The predictions had been based on the demographic reality that, between 1979 and 1992, the nation would face a sizeable decrease in the number of 18-year-olds among its population (WICHE, 1988).

Higher education enrollments have remained relatively steady since 1979, seemingly defying the demographic predictions (CES, National Estimates, 1987). This surprising level of stability has been due to increased enrollment of students from older age groups (in effect, replacing some of the 18-year-olds) and also to a higher college-going rate among high-school graduates in recent years (CES, *Condition of Education*, 1987).

Table 1 offers a general picture of how colleges and universities have fared since 1980 in terms of their full-time-equivalent enrollment. Several points can be made:

- A majority—54 percent—had net increases in enrollment since 1980.
- Most institutions witnessed striking enrollment change—whether an increase or decrease—since 1980; only 3 percent had no overall change in enrollment during this time.
- Fully 1 in 3 institutions had enrollment increases of 10 percent or more.

Viewed against demographic predictions of decreased enrollment, this picture is generally positive. Most institutions had enrollment gains, and fully one-third had sizeable increases (10 percent or more).

Despite the overall picture, many colleges and universities have faced lower enrollments:

- At least 4 in 10 institutions had net decreases in their enrollment since 1980.
- Among independent institutions, close to half (47 percent) reported a net enrollment decrease since 1980. This includes 28 percent who reported losses of 10 percent or more.
- Although 4 in 10 public institutions had net enrollment losses since 1980, the size of the loss was often moderate: only 24 percent of two-year public colleges and 17 percent of four-year public institutions reported losses of 10 percent or more.

Factors Explaining Enrollment Changes

Higher education's enrollment success since 1980 has resulted from five major factors, in the view of most campus administrators (Table 2A):

• Changes in the pool of potential applicants	71 percent
• Recruitment practices	69 percent
• Publicity about the institution	68 percent
• Changes in student retention	61 percent
• Changes in adult students	53 percent

These explanations probably reflect a good amount of deliberate institutional actions, especially in recruitment practices or changes in student retention. Only one-third of administrators attributed their enrollment experience to "luck."

Among the colleges with net gains in enrollment during this period (Table 2B), recruitment and publicity activities took on even greater importance, cited as factors by more than 8 in 10 institutions. Student retention was more important, too, cited by 3 in 4 of these institutions.

Another factor also stands out among the institutions with net enrollment gains: introduction of curricular changes and new programs. About half of these institutions reported that changes in the curriculum played a major role in their enrollment success (Table 2B). This factor was named by almost 6 in 10 of the two-year colleges with enrollment gains.

Among the institutions with net losses in enrollment since 1980 (Table 2C), the major factor—cited by 85 percent—was changes in the pool of potential applicants, apparently working to their disadvantage. Recruitment practices, publicity about the institution, changes in student retention, and changes in adult students were factors mentioned by about half of the institutions with net enrollment losses. Budgetary constraints were mentioned by 30 percent of two-year public institutions and by 19 percent of four-year public institutions who suffered overall enrollment losses during this period.

Most Colleges Increased Enrollment in 1987–88

For the 1987–88 academic year, the majority of American colleges and universities reported enrollment gains. Just over half increased both their overall

enrollment and their full-time-equivalent enrollment (Table 3). A majority also reported increases in first-time freshmen; the latter can be especially sensitive to changes in the number of 18-year-olds entering college.

As Figure 1 shows, the 1987–88 enrollment picture was better than in previous years. More colleges and universities had enrollment increases—and fewer had enrollment decreases—than in any of the previous three years. Several comparisons are striking:

- On headcount enrollment, 53 percent of colleges and universities increased their enrollment in the last year. Comparable figures were 35 percent in 1986–87 and 43 percent in 1985–86.
- Relatively few institutions (16 percent) reported losses in headcount enrollment in 1987–88 (compared to 32 percent in 1986–87 and 36 percent in 1985–86).
- Enrollment of first-time freshmen increased for 56 percent of institutions in the last year, compared to 32 percent of institutions in 1986–87 and 40 percent of institutions in 1985–86.

This overall enrollment picture is stronger than in previous years and, certainly, more positive than most analysts might have predicted.

Yet, as was true with enrollment trends since 1980, the overall picture for 1987–88 also includes a small proportion of colleges and universities with enrollment losses (Table 3).

- Enrollment of full-time students dropped for 23 percent of institutions, including 31 percent of public two-year colleges.
- Some institutions, including 20 percent of doctoral universities, reported decreases in first-time freshmen in 1987–88.
- Public two-year institutions were disproportionately affected by enrollment losses: twenty-five percent of public two-year colleges had losses for the year in full-time-equivalent enrollment.

Increasing Student Diversity: Few Results

Progress regarding enrollment of minority students was quite modest in 1987–88: at best, about one in four institutions had increased their enrollment of Black, Hispanic or Asian students (Table 3). Only 15 percent had increased their enrollment of Native American students over the previous year.

Figure 1
Yearly Increases in Enrollment

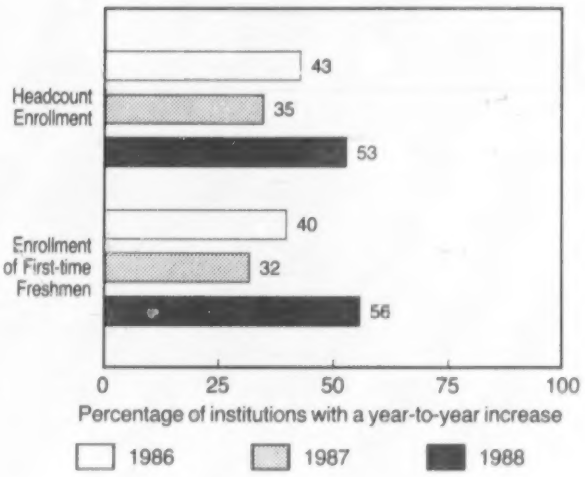
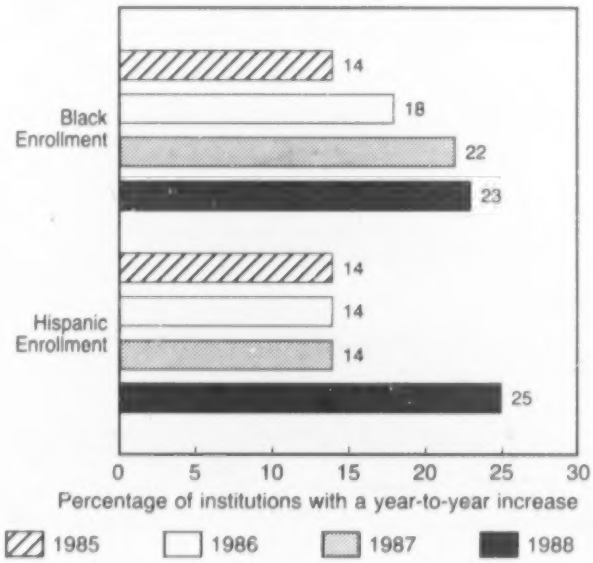


Figure 2
Yearly Increases in Minority Enrollment



Compared to the last three years, however, there has been a small gain in the percentage of institutions reporting increases in minority enrollment (Figure 2):

- For Black enrollment, the percentage of institutions reporting enrollment gains has moved from 14 percent in 1984–85 to 23 percent in 1987–88.
- A similar change appears for Hispanic enrollment: in 1987–88, 25 percent of institutions reported increases in a year's time, compared to 14 percent in 1984–85.

In another part of the *Campus Trends* survey, administrators were asked to rate their institution's performance in attracting minority students. Most—about two-thirds—assigned "fair" or "poor" ratings to their institutions on this point, both with respect to Black students and Hispanic students (Table 8). Regarding a college's ability to retain Black or Hispanic students once they enroll, about 4 in 10 assigned "fair" or "poor" ratings to their institutions. Thus, whether for recruitment or retention, very few administrators gave their institutions high ratings on this aspect of their performance.

Steady Enrollment in The Future?

Most colleges and universities expect to continue to "outsmart" the demographics. Between 1988 and 1992, a 12 percent decrease is predicted in the number of high-school graduates. This decrease, occurring over only a four-year period, presents a sharper rate of decline in the number of 18-year-olds than has occurred since 1979 (WICHE, 1988).

Despite these predictions, only 16 percent of college administrators expect an enrollment decrease for their institutions over the next five years (Table 4). Another 13 percent expect to have stable enrollment. An optimistic view clearly predominates:

- Fully 7 in 10 administrators expect enrollment increases for their institutions over the next five years.
- One-third expect enrollment increases to measure more than 10 percent over the next five years.
- Another 19 percent expect enrollment increases of 5 to 9 percent.
- Among independent institutions, 43 percent expect enrollment increases of 10 percent or more.

II. FINANCIAL STATUS

With respect to their overall budgets, 8 in 10 colleges and universities reported a year-to-year increase in funds (Table 5). This may have meant increases to keep up with inflation, not expansion, for many institutions.

Some colleges and universities, especially in the public sector, are losing ground financially:

- Sixteen percent of two-year public institutions reported that their overall budget had decreased over a year's time.
- Twelve percent of four-year public institutions reported an overall budget decrease.
- Only 57 percent of two-year public institutions and 67 percent of four-year public institutions received increased revenues from state and local governments, their primary source of financial support.

Among institutions in the independent sector, 9 in 10 reported increases in their overall budgets and their budgets for educational and general purposes. However, at 4 in 10 independent colleges and universities, the institution's level of indebtedness had increased in the last year.

Only about Half of Institutions Gain Income from Endowment and Gifts

Gifts and annual giving are an important source of income for American colleges and universities. Yet, some institutions are more successful than others in generating gifts. In 1987–88, only about half of American colleges and universities reported increased income from gift sources. This included 3 in 10 public two-year institutions and 6 in 10 public four-year institutions as well as 6 in 10 independent institutions (Table 5). For a year in which national figures on giving showed a sizeable increase, as reported by the Council for Aid to Education (1988), it is notable that a good proportion of institutions—49 percent—did not share in this funding-raising success.

A similarly mixed picture is evident regarding income from endowment: only 4 in 10 institutions reported any increase in income from endowment for the past year. Just over half of the institutions in the independent sector (55 percent) reported increased income from endowment.

So too, income from grants and contracts increased for only about 4 in 10 institutions. Among doctoral universities, 8 in 10 reported increased income from grants and contracts.

Affordability is a Growing Issue

A major issue facing administrators of colleges and universities today is how to keep their institutions affordable. Survey results suggest that some institutions may be losing ground in this battle.

- In 1988, over half (55 percent) of administrators at independent institutions reported an increase in the share of costs that students and parents must pay; a year ago, 38 percent had reported that the share paid by students and parents had increased.
- Similarly, 53 percent of administrators at public four-year institutions reported an increase over the last year in the share of costs paid by parents and students. A year ago, one-third had reported such an increase.

Most institutions have responded to this growing affordability gap by increasing their expenditures from the institution's own funds to provide financial assistance to needy students (Table 5). Fully 8 in 10 independent institutions increased their budgets for institutionally funded student aid in the last year. This continues a pattern reported for previous years as well: a similar percentage of independent institutions had increased their institutionally-funded student aid in each of the last two years (*Campus Trends, 1986* and *Campus Trends, 1987*).

At 54 percent of the public four-year institutions, administrators also reported increases in the budget for institutionally-funded student aid. Such funding of institutional student aid by public institutions also appears to be increasing. In 1987, close to half of four-year public institutions had reported an increase in institutionally funded student aid.

Changes in federal student aid are necessarily a factor in the overall student aid picture:

- One in 3 colleges and universities received no increase in federal funds for student aid in the last year.
- Federal aid funds actually decreased for 21 percent of institutions.

This pattern repeats the experience reported in last year's survey, in which 15 percent of institutions experienced a drop in federal funds for student aid and another 56 percent received no increase in federal student assistance.

Expenses: Computing and Faculty Salaries are taking a Larger Share of College Budgets

Table 6 documents some of the changing pressures on college expenditures. The majority of institutions are now directing a larger share of their budget to:

- Computing equipment and operations;
- Faculty salaries;
- Admissions and recruitment; and
- Institutionally funded student aid.

Computerization has apparently become a necessity of collegiate life. This increased expenditure was reported by all types of colleges and universities.

More than 7 in 10 institutions reported that they are now allotting a larger share of their budgets to faculty salaries. This change reflects the actions of most colleges to improve faculty salaries over the last few years, following significant losses to inflation that faculty salaries suffered in the late 1970s and early 1980s. Because colleges are labor intensive, such salary increases undoubtedly are also causing general financial pressures at many colleges.

Admissions and recruitment activities are taking a larger share of the budget at 3 out of 4 independent institutions (Table 6); the same proportion of independent institutions are also spending a larger share of their budgets on institutionally-funded student aid. A good number of public institutions also reported increased spending in these areas. About half of public institutions reported that admissions and recruitment activities required a larger share of their budgets. Also, 1 in 3 public institutions are now spending a larger share of their budgets on institutionally-funded student aid.

Purchasing for books and periodicals is an area in which many institutions have cut back, either by decreased spending or by not increasing their spending (Table 6). This may be cause for concern in light of the fact that costs for books and periodicals have increased dramatically in recent years (Dougherty and Barr, 1988).

Rates of Tuition Increase Differ Widely

Much of the general publicity about college tuition relies on statistics about the overall rate of change among public and independent institutions of higher education. As Table 7 shows, a good deal of variation among different types of institutions is masked by reliance on such averages.

- Only 27 percent of colleges and universities reported tuition increases for fall 1988 that are higher than 7 percent.
- Another one in four colleges and universities are increasing tuition by 6 to 7 percent.
- About half of colleges and universities have 1988 tuition increases that are at or below 5 percent. This includes 27 percent of institutions reporting tuition increases of 3 percent or less.
- Close to 3 in 10 comprehensive institutions and almost 4 in 10 two-year colleges reported tuition increases for fall 1988 of 3 percent or less.

Put another way, two-thirds of public colleges and universities and almost 3 in 10 independent institutions have set tuition increases that may not keep up with inflation (i.e., if inflation exceeds 5 percent).

It can be noted that all of the above figures on 1988 tuition increases fit quite well with the estimates for 1988 given by respondents in the *Campus Trends 1987* survey. Thus, for instance, 73 percent of public institutions and 32 percent of independent institutions had estimated, in spring 1987, that their fall 1988 tuition increases would be 5 percent or less.

When asked to guess what tuition increases might be for another year ahead (fall 1989), administrators generally suggested modest increases compared to 1988 (Table 7). More than half predicted tuition increases of 5 percent or less (Figure 3).

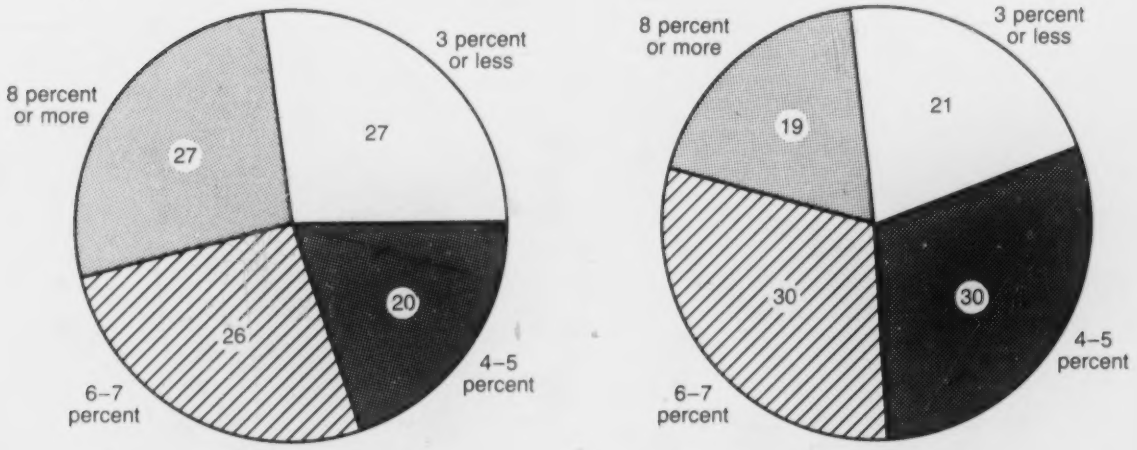
- At two-year public institutions, 8 in 10 administrators predicted that tuition increases for 1989 would be 5 percent or less. At four-year public institutions, two-thirds of administrators estimated that tuition would rise by 5 percent or less.
- Among independent institutions, about half predicted that tuition increases would be about 6 to 7 percent. The others include 27 percent predicting tuition increases of 5 percent or less. Administrators at about 1 in 4 independent institutions predicted tuition increases of 8 percent or more.

Administrator Views on their Financial Pressures

Many of the patterns of college finances just discussed also appeared in *Campus Trends* surveys conducted during the past few years. Campuses are facing both new and changing financial requirements in the midst of financial constraints. Table 8, which summarizes the opinions of senior administrators about their institution's overall status, offers some perspective on how colleges are reacting to these financial pressures:

- In 1988, fewer than half—44 percent—of college administrators considered their institution's overall financial condition to be "excellent" or "very good."
- Another 18 percent gave their institutions very low ratings—"fair" or "poor"—on financial health (Table 8).

Figure 3
Expected Tuition Increases, Fall 1988 and Fall 1989



- Administrators at four-year public institutions had the most negative assessment: only 1 in 3 gave high ratings to their institution's financial condition, and another 1 in 3 gave ratings of "fair" or "poor."

These opinions, not very positive overall, are better than what was reported on the same survey questions two years ago: in the 1986 survey, only 36 percent of college administrators gave their institution an "excellent" or "very good" rating on financial condition. This slight improvement is found almost entirely among public institutions.

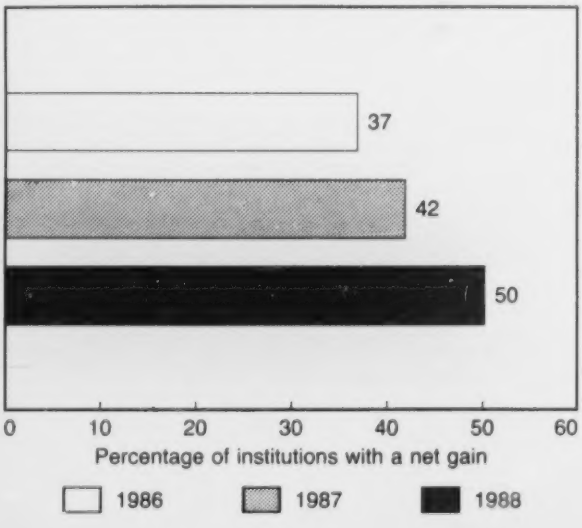
III. College and University Faculty

Faculty Hiring Continues

Over the course of the last year, almost all colleges and universities (about 8 in 10) made new faculty appointments. Many of these appointments were made to fill positions that had become vacant. However, half of American colleges and universities also reported net gains in their number of full-time faculty (Table 9).

These figures signal an increased pace of faculty hiring among colleges and universities. Figure 4, summarizing data from this and two previous *Campus Trends* surveys, shows that there has been a steady increase in the percentage of colleges reporting a net gain in faculty positions.

Figure 4
Net Gains in Full-time Faculty



For 21 percent of institutions, a net loss in full-time faculty positions occurred. About the same percentage of institutions had also reported net losses in faculty on previous surveys.

Hiring of more minority faculty is a major concern on most college campuses today. Yet, most campuses (3 out of 4) made no progress in the last year.

- Only 25 percent of colleges and universities reported a net gain in minority faculty in the last year.
- Comprehensive and doctoral institutions reported a slightly better record: 4 in 10 reported net gains over the previous year in their number of minority faculty (Table 9).
- Among doctoral universities, 12 percent reported a net loss in minority faculty in the last year.
- Public institutions were somewhat more successful than independent institutions: 38 percent of four-year public institutions and 24 percent of public two-year institutions reported net gains in minority faculty, compared to 19 percent of independent institutions.

Hiring of women faculty is also of concern. Yet, only 4 in 10 institutions reported progress in this regard (Table 9). About half of the campuses reported no net change in the representation of women among their faculty, and 9 percent reported a net loss of women faculty. Among doctoral institutions, 6 in 10 reported net gains in the number of their women faculty, but another 17 percent reported net losses of women faculty.

Shortages Ahead? Problems Already Exist

Several recent reports, especially the analysis in the book, *American Professors*, by Howard Bowen and Jack Schuster (1984), have predicted future shortages of college faculty, a result of an increasing trend of retirements among faculty over the next decade at a time when there are very small cohorts of graduate students available to replenish their ranks.

Shortages already exist for certain fields (Table 10). About 6 in 10 colleges and universities reported current shortages of faculty in computer sciences, for example. Although every type of institution is affected, shortages of computer scientists are especially severe among doctoral institutions, where 86 percent were unable to fill vacant faculty positions in the computer sciences.

Widespread shortages are also reported in business. About 7 in 10 doctoral and comprehensive institutions were unable to fill vacant positions in business. Six in

ten baccalaureate colleges and 1 in 5 two-year institutions also reported difficulty in filling positions in business.

In mathematics, one-third of all institutions were unable to fill vacant positions (Table 10). All types of institutions were affected, but public institutions were more likely than independent institutions to report such difficulties.

Over the next five years, these shortages in computer science, business, and mathematics are expected to continue (Table 10). At the same time, a good number of institutions expect shortages to appear in other fields, including:

- Health professions 27 percent
- Engineering 24 percent
- Foreign languages 20 percent
- Vocational fields 19 percent
- Physical sciences 20 percent

Shortages in the health professions and vocational fields are expected at 4 in 10 public two-year colleges. Among doctoral universities, more than half expect shortages in engineering and 4 in 10 expect shortages in the physical sciences.

Other early evidence of a tightening academic labor market is found in recent campus experience in seeking to hire new faculty. About 4 in 10 institutions reported greater difficulty in getting top applicants to accept positions offered to them. In 1987, a smaller proportion—1 in 4—had reported this difficulty.

Very few administrators reported another possible change in labor market conditions for faculty: only 14 percent reported that the quality of applicants for full-time faculty positions had declined in the past year (Table 10).

Part-time Positions: Holding the Line?

In the past year, 42 percent of colleges and universities reported that they had a net gain in the number of part-time faculty they employed (Table 9). Another 4 in 10 institutions made no change, while 2 in 10 reported a net loss of part-time positions. Similar percentages were reported in 1987 as well.

As Table 11 shows, a substantial number of American colleges and universities made extensive use of part-time faculty in the past year (i.e, for more than one-fourth of their courses). This overall figure is somewhat misleading, however, because two-year and four-year institutions follow quite different patterns regarding the use of part-time faculty:

- Sixty percent of two-year colleges made extensive use of part-time faculty in the last year.
- Among four-year institutions, only 1 in 3 baccalaureate and comprehensive institutions made extensive use of part-time faculty and even fewer—17 percent—of doctoral universities did so.

Use of part-time faculty has changed very little since 1984, when 43 percent reported extensive use of part-time faculty. At a time when critics have stressed the importance of full-time faculty positions, and when some have called for a consolidation of part-time into full-time positions, it appears that many institutions may be "holding the line" on their use of part-time faculty.

Tenure Rates Have Not Changed

Tenure rates have been subject to close monitoring by many colleges and universities over the last decade, due to substantial faculty hiring in the 1960s and much less new hiring in the last decade. Findings shown in Table 11 suggest that colleges have taken steps to keep the proportion of faculty on tenure from rising during this time.

As can be seen, the average percentage of faculty holding tenure in 1987–88 was 63 percent (among those institutions with tenure systems). This tenure rate is quite close to the average tenure rates reported by several studies conducted during the 1970s (Lee, 1983). It is much lower than the tenure rates that were predicted by the Carnegie Council in 1980.

Very few colleges and universities currently have tenure rates of 80 percent or more (Table 11). Among four-year institutions, fewer than 1 in 10 have such high levels of tenured faculty. Among baccalaureate colleges, an average of 54 percent of faculty hold tenure.

At least 3 in 10 two-year institutions do not have tenure systems. Other two-year institutions—about 4 in 10—reported tenure rates of 80 percent or more, but in many instances these figures are based on "tenure-like" arrangements for long-term employment contracts.

Faculty Retirements: No Changes Expected

Colleges and universities currently are experiencing a rather low level of retirements among their faculty and apparently expect no change in this pattern for the near future:

- In the last five years, an average of 18 faculty members retired at each institution (Table 12).
- Over the next five years, much the same number of faculty retirements are expected.

These averages are not very meaningful by themselves but they do suggest that campus expectations are for a low, and unchanging, rate of faculty retirements over the next five years. However, it is also true that 1 in 4 institutions did not provide information on current or expected retirements.

About 4 in 10 colleges and universities have procedures in place to offer incentives for early retirement. This includes:

- Two-thirds of doctoral universities,
- Over half of comprehensive institutions, and
- One-third of baccalaureate and two-year colleges.

Public institutions are more likely than independent institutions to offer such incentives (about 5 in 10 versus 3 in 10, respectively).

Phased retirement options are relatively rare as well. Only 18 percent of colleges and universities offer such options to their faculty.

A small proportion of institutions—22 percent—are currently revising their faculty retirement plans (Table 12). This includes 3 in 10 four-year institutions. At the same time, one-third of institutions have procedures for systematic faculty planning (regarding expected changes in faculty hiring, tenure rates, retirements, etc.).

On all of these aspects of faculty retirement policy, a clear difference exists between doctoral universities and other institutions:

- Two-thirds of doctoral universities offer incentives for early retirement of faculty;
- More than half have procedures for systematic faculty planning;
- Half offer phased retirement options for faculty.

These proportions are consistently higher than what was reported by other types of institutions.

In brief, survey responses show that colleges and universities are not expecting an increased rate of faculty retirements over the next few years and only a few have procedures to anticipate changes in retirement rates. This may be unrealistic, in view of recent predictions that a growing number of faculty will be reaching retirement age in the near future. Also, because mandatory retirement ages will soon be terminated, it might have been expected that more institutions would be reexamining their faculty retirement plans or offering flexible retirement options. On future surveys, responses to these questions may begin to show changes.

IV. Assessment

Active Discussion, Some Results

The nation's campuses are paying substantial attention to student assessment. As Table 13 demonstrates:

- About half of institutions have some form of assessment activities underway;
- About 6 in 10 institutions have discussions taking place about assessment; and
- Three-quarters of campus administrators expect some form of assessment to be introduced on their campuses in the next few years.

A significant proportion of public colleges and universities—43 percent—are operating under a state mandate to have assessment procedures. This proportion has increased in recent years: in 1987, 35 percent of public institutions had reported a state requirement for assessment. These mandates, it should be noted, generally involve an expectation that campuses develop some form of assessment activity but allow campuses to make their own plans. Only a handful of states actually specify a type of assessment activity.

Notably, differences between sectors on state requirements for assessment do not translate into differences in whether colleges have discussions underway on assessment. Among public institutions, 66 percent have discussions taking place; among independent institutions, 62 percent reported such discussions. There were only slight sector differences in the expectation that some form of assessment will be introduced in the next few years (reported by 77 percent of public institutions versus 70 percent of independent institutions). Apart from state mandates, then, the majority of American colleges and universities are paying attention to assessment and expect to adopt some form of assessment in the near future.

A state mandate does increase the pace of assessment activity, however. Compared to independent institutions, more public institutions already have assessment activities underway and have developed new information from their assessment activities (Table 13).

Assessment is Strongest at Two-Year Institutions

Support for assessment is especially notable at two-year institutions:

- At two-year colleges, 3 out of 4 administrators judged that their college's faculty would support the development of assessment procedures, a higher proportion than given by other types of institutions.

- Close to half of two-year colleges were developing their own assessment instruments, a higher proportion than given by other institutions.
- Only about 1 in 4 administrators at two-year colleges agreed that "there is no clear sense of what to assess" or that "there are no good instruments" for assessing students, a lower proportion than given by other institutions.

Close to 4 in 10 two-year colleges already have received new information on student learning as a result of their assessment activities. About half of two-year colleges have already used assessment information for program evaluation, for curriculum changes, for feedback to students, and for reports to the faculty; in all instances, such uses were more often reported by two-year colleges than by other types of institutions (Table 13).

Administrators Support Some Aspects of Assessment

Certain assessment issues are less troubling than they were a year ago, according to a comparison of this survey's responses with those given on the 1987 *Campus Trends* survey:

- In 1988, one-third of administrators agreed that it was not clear what to assess, a decline from the 47 percent who agreed with that statement in 1987.
- One-third agreed in 1988 that there are no good assessment instruments, down from the 42 percent who agreed with this statement in 1987.

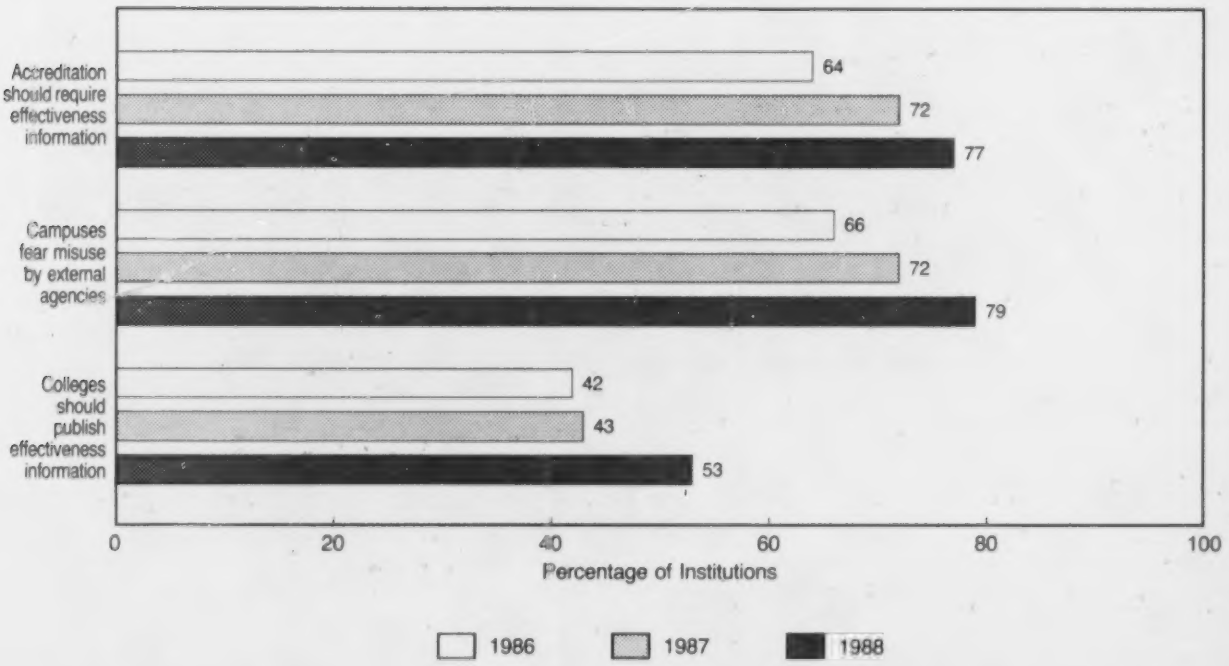
This may be consistent with the fact that just over half of institutions now have some form of assessment activities underway.

There is increased support for the use of measures of institutional effectiveness in the accreditation process: almost 8 in 10 administrators supported such use in 1988, up from 72 percent in 1987 and 64 percent in 1986 (see Figure 5).

There also was increased support for the view that colleges should develop and publish evidence of their institutional effectiveness. Just over half agreed with this statement in 1988; agreement levels in earlier years were lower, at 42 and 43 percent, respectively, in 1986 and 1987 (Figure 5).

Concern about misuse of assessment results has increased over the last two years, however. Fully 8 in 10 administrators agreed that "most campus officials

Figure 5
Administrator Views on Assessment



have strong fears about misuse of effectiveness measures by external agencies" (Table 14). Lower percentages—66 percent and 72 percent—of college administrators had agreed with this statement in 1986 and 1987, respectively (Figure 5).

Most college administrators do not favor a strong state role in assessment. Only 47 percent agreed that states should require colleges to show evidence of institutional effectiveness. There has been no change in this position over the last two years. Just over half of the administrators at public institutions supported this role for the states (Table 14).

Misgivings about standardized tests have increased in the last two years. In 1988, about 6 in 10 administrators agreed that the use of nationally standardized tests for student assessment "risks distorting the educational process." Lower proportions—4 in 10 in 1986 and 5 in 10 in 1987—had agreed with this statement earlier.

Consistent with this distrust of national instruments, close to half of the institutions reported that they were developing their own instruments for assessment (Table 13). To gain the ability to make comparisons beyond their own campus, some have arranged to work with other institutions: about one in four institutions reported that they were collaborating with other colleges and universities on their assessment activities. This includes 4 in 10 public institutions.

It appears, then, that campus administrators increasingly endorse the concept of assessment, and have fewer concerns about the availability of appropriate "tools" for assessment. It also seems that they wish to see assessment develop in a way consistent with each institution's own circumstances. They prefer an approach that is focused on each institution's actions, and one that makes use of assessment instruments developed by their own faculty. Substantial numbers of administrators continue to disagree that the states should mandate assessment; in contrast, almost all support the use of assessment information in the accreditation process.

The benefits of assessment are still to be seen, in the view of campus administrators. One in three administrators agreed that, so far, "assessment has resulted mainly in new reporting requirements to the state" (Table 14). Among public four-year institutions, 1 in 4 administrators took this view. At the same time, just over half of the survey respondents agreed that "assessment will significantly improve undergraduate education" (Table 14). There were substantial differences in this view by type of institution: two-thirds of administrators at two-year colleges supported this statement, but very few administrators at doctoral institutions (18 percent) held such a salutary view of assessment.

This contrast between two-year colleges and doctoral institutions also appears on other aspects of assessment, including whether assessment should be linked to institutional planning and budgeting; whether colleges should publish effectiveness information; and whether accrediting agencies or the state should require evidence of effectiveness. On all of these statements, administrators at two-year colleges took a predominantly positive view, while administrators at most doctoral institutions did not support such statements.

Types of Assessment Activity

As Table 15 documents, most assessment activity that is already in place is focused on basic college-level skills (e.g., in English or mathematics). Two-thirds of institutions—including half of four-year institutions and 8 in 10 two-year colleges—have assessments in place for such skills. One in three institutions have assessments in place for writing.

About one-third of institutions reported plans to develop assessment for:

- Knowledge in general education subjects — 34 percent
- Knowledge in a major — 34 percent
- Critical thinking — 36 percent
- Quantitative problem-solving — 31 percent
- Oral communication — 31 percent
- Long-term outcomes of graduates — 34 percent

It appears that colleges are adopting a variety of approaches to assessment, with no dominant emphasis. Some distinctions appear by type of institution. More comprehensive institutions, for example, planned to focus on long-term outcomes of graduates. Baccalaureate colleges were more likely than others to be planning assessments focused on knowledge in a student's major (Table 15).

Table 16A provides information on the procedures that colleges and universities are using to assess student learning. Here, too, diversity of approach is evident. The most frequently reported procedures that are already in place included:

- Demonstrated proficiency through performance or portfolio — 32 percent
- ACTs — 28 percent
- "Other" nationally standardized test instruments — 26 percent
- Tests developed by our faculty — 26 percent
- SATs — 23 percent
- Pre- and post-tests tied to courses — 24 percent

Several testing approaches are in use, in each instance by a small proportion of colleges and universities. SAT and ACT exams have each been used for assessment purposes by about 1 in 4 institutions. In addition, 12 percent of institutions (but 34 percent of comprehensive institutions) have used GREs for assessment, and 17 percent have used the ACT-COMP battery (including 27 percent of comprehensive institutions). Just 14 percent of institutions have a minimum competency or "rising junior" test in place (Table 16A).

Survey responses on **planned** assessment activities (Table 16B) also suggest that no single approach to assessment is currently favored. There is considerable interest in pre- and post-tests, but institutions vary in their potential focus. Some plan pre- and post-tests that are tied to the general education part of the curriculum (23 percent of institutions), others will use them in major fields of study (20 percent of institutions) or with individual courses (16 percent of institutions).

Responses about campus plans also suggest a disinclination to use nationally standardized test instruments, at least those described on the *Campus Trends* questionnaire. At best, 1 in 10 institutions had plans to use specific, nationally available test instruments. In contrast, 21 percent of institutions planned to use "tests developed by our faculty" and 7 percent expected to use tests developed at the state level.

V. Curriculum Change

Significant Curriculum Changes have Been Completed

Extensive curriculum change has taken place in the 1980s at American colleges and universities. In 1988, more than 9 out of 10 colleges and universities had recently completed or were in the midst of curriculum change (Table 17). Major changes have included:

- Greater emphasis on improving the writing skills of students (reported by 85 percent of institutions);
- New general education requirements (reported by 74 percent of institutions);
- New ways to involve students in internships (reported by 65 percent of institutions);
- Greater emphasis on analytical or critical thinking (reported by 60 percent of institutions);
- Greater emphasis on the freshman year (reported by 59 percent of institutions); and
- New ways to assess student progress and learning (reported by 58 percent of institutions).

Clearly, most American colleges and universities have taken steps in recent years to strengthen the undergraduate curriculum, particularly its general education requirements. About 7 in 10 administrators reported that, compared to 1980, their institutions now have "increased coherence" in general education. In addition, about 6 in 10 administrators reported that the curriculum now included "more rigorous standards" for graduation (Table 17).

Many Changes Parallel Recent National Recommendations

College faculty and administrators appear to be responding to a variety of objectives as they have revised the undergraduate curriculum. Indeed, many of the recommendations found in recent national reports appear to have been heeded as colleges have made changes.

Several themes that appeared in the report, *Involvement in Learning* (National Institute of Education, 1984), for example, also appear in the pattern of changes made (Table 17). This includes:

- Greater emphasis on the freshman year, reported by about 6 in 10 institutions,
- New attention to analytical or critical thinking skills, reported by 6 in 10 institutions,
- New ways to assess student progress and learning, reported by 6 in 10 institutions;
- Greater emphasis on "active" modes of learning, reported by half of institutions; and
- Greater emphasis on class discussion, reported by one-third of institutions.

Increased sensitivity to global awareness and cultural differences also appears:

- About half of institutions, including about 6 in 10 comprehensive and doctoral universities, have given greater attention to multicultural diversity;
- One-third of institutions, including about half of all four-year institutions, have increased their curricular emphasis on international matters; and
- One in five institutions, including 40 percent of doctoral institutions, have given greater emphasis to the foreign language proficiency of students.

Opportunities for student involvement in community service have been the focus of recent recommendations, particularly by participants in the "Campus Compact" project. About one-third of institutions have recently developed new ways of involving students in community service experiences (Table 17).

Some of the themes found in the report, *To Reclaim a Legacy*, authored by William Bennett when he

chaired the National Endowment for the Humanities (Bennett, 1984), also appear. Greater emphasis on values and ethical issues was reported, for example: more than 4 in 10 institutions have made curricular changes to emphasize such issues. Half of the universities have done so.

More than one-third of institutions—including 43 percent of baccalaureate colleges and 42 percent of comprehensive institutions—have given greater emphasis to humanities courses in recent years. A similar proportion of institutions—31 percent—reported increased emphasis on history and civilization courses. However, very few institutions—14 percent—reported an increased use of original texts in the curriculum (Table 17).

Other recommendations, directed especially to potential science majors, have called for the increased involvement of undergraduates in research projects. Half of the comprehensive and doctoral universities have responded with changes in this respect. Issues of science and technology have received new curricular attention at 44 percent of institutions (Table 17).

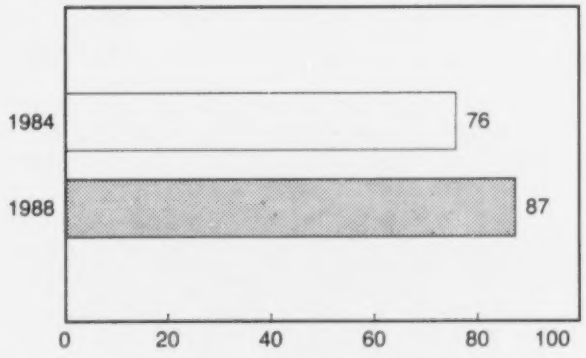
More Structured Requirements for Admissions and Graduation

A general trend in academe is toward more structured academic requirements. Several such changes are reflected in Figure 6, which compares 1984 and 1988 responses:

- Placement tests for entering students are prevalent today. About two-thirds of institutions require placement testing in English, writing, and mathematics for all students; the others require some students to have placement tests.
- Almost all institutions today (almost 9 in 10) require all of their students to complete coursework in general education, compared to three-quarters of institutions in 1984 (Figure 6).
- More institutions today (about half) have writing proficiency requirements that all students must meet prior to graduation.

Quite often, requirements apply to some but not all students (Table 18). Some institutions may not require placement testing for students whose standardized test scores and high-school record already demonstrate strong ability. Foreign language requirements and core coursework requirements may apply to all students majoring in the arts and sciences, but may not be applicable to students in engineering or allied health programs.

Figure 6
Required Courses in General Education



A small number of institutions report that their students must meet state-mandated proficiency requirements before graduation. One in ten institutions reported such requirements for all of their students, including 21 percent of public two-year institutions. Another 17 percent of institutions reported such requirements for some of their students, probably in fields requiring state certification (Table 18).

General Education Requirements Vary in Form and Content

Although 9 in 10 colleges and universities require coursework in general education of all students today, there is some variation in how students may meet those requirements. Most institutions (85 percent) have distribution requirements, in which students select courses from each of several categories (Table 19A). In contrast, about half of all institutions have developed integrative "core" courses (eg, problem-focused or thematically organized courses) that are taken by all students.

A frequent pattern, apparently, is to combine an integrative course (or courses) with distribution requirements. Just over half of institutions offer a mix of such integrative courses and distribution requirements as the general education component of the curriculum.

More than 8 in 10 institutions include the following subjects among their general education requirements:

- English/communications
- Social sciences
- Mathematics
- Humanities
- Natural sciences
- Writing

Writing requirements have become widespread: 82 percent of all institutions—and close to 9 in 10 four-year institutions—include writing among their general education requirements (Table 19A) for all students.

Other subjects also appear as part of general education requirements. Fine arts, for example, were part of required coursework at 6 in 10 institutions, including 76 percent of baccalaureate colleges (Table 19A). Courses in computer science were part of the general requirements at 4 in 10 institutions.

Courses that emphasize the study of Western civilization were required by about half of the institutions with general education requirements. About one in four now include the study of non-Western civilization—or of world civilization—among their requirements (Table 19A). It should be noted that, at some institutions, students can meet general education requirements by choosing among several "civilization" courses that are offered.

VI. Important Challenges Ahead

As part of the 1988 *Campus Trends* survey, college administrators were asked to name the three most important challenges facing their institution over the next five years. About 75 percent of respondents offered a response. Tables 20 and 21 summarize the results, based on categories developed from answers given by respondents.

As might be expected, three themes predominated: program quality, finance, and enrollment (Table 20). It is especially notable that issues of program quality were mentioned most often, by 68 percent of administrators, ranking ahead of the basic "survival" issues of enrollment and adequate finances.

Almost 7 in 10 colleges and universities cited issues relating to *program quality* among the most important challenges they will face over the next few years. Table 21, in which responses are organized into more detailed categories, shows that several distinctive aspects of program quality were cited:

- Strengthening the curriculum
- Implementing assessment programs
- Maintaining program quality with limited resources
- Serving new needs and populations

A good many responses linked actions to maintain or improve program quality with an awareness of how their achievement will be made more difficult because of financial constraints. Examples include:

- "Securing adequate finances for program growth" (two-year college)
- "Maintaining excellence and quality in the face of declining levels of support" (two-year college)
- "Maintaining quality without increasing costs" (independent baccalaureate college)
- "Expanding programs with limited resources" (public university)
- "Creating program change with less money" (independent comprehensive institution)
- "Maintaining research activities with declining federal support" (public comprehensive institution)
- "Keeping tuition increases to under 5 percent while maintaining currency of learning resources" (independent baccalaureate college)

Administrators recognize that *enrollment challenges* also will be important. For most institutions, including two-thirds of the independent sector, the issue is viewed primarily as a need to maintain enrollment levels in light of continuing demographic changes. For some institutions, the issue is more specific: a good number of doctoral universities said that their major enrollment challenge was to continue to recruit academically strong students despite demographic change. As another example, 16 percent of baccalaureate colleges and 13 percent of public two-year colleges said that one of their greatest challenges was to achieve and manage planned growth in enrollment (Table 21). Improving student retention was mentioned as an aspect of the enrollment challenge by other institutions, especially two-year colleges.

The need for *adequate financial support* is a major challenge in the near future, mentioned by 55 percent of administrators. In most cases, the concern was with the adequacy or the stability of financial support. Examples of responses include:

- "Escalating costs due to need for supplemental student services"
  (public two-year college)
- "Adequate financing of operational costs"
  (public university)
- "Achieving financial equilibrium"
  (independent university)
- "Rising costs versus tuition"
  (public comprehensive institution)
- "Significant improvement of financial position"
  (independent baccalaureate college)
- "Achieving and maintaining financial stability"
  (independent comprehensive institution)

The need to cope with reduced funding was also mentioned, especially by public institutions. Among the responses were:

- "Adjusting programs to reduced funding"
  (public comprehensive institution)
- "Diminished resources"
  (public university)
- "Eroding budgets due to the economic condition of the state"
  (public two-year college)
- "Competition for the decreasing pool of extramural funds"
  (public university)

Among independent colleges and universities, a frequently mentioned financial challenge was that of increasing their resource base: 22 percent considered this among their most important challenges over the next few years. Responses included:

- "Adding to our endowment"
  (independent baccalaureate college)
- "Meeting the goals of our capital campaign"
  (independent university)
- "Broadening our base of support"
  (independent baccalaureate college)
- "To expand substantially the University endowment"
  (independent comprehensive institution)
- "Increasing our resource base"
  (independent comprehensive institution)

Other Themes

Apart from these three major themes, other issues also appeared with some frequency. A good number of institutions, especially among comprehensive institutions and doctoral universities, reported that *improving racial and ethnic diversity* was one of their most important challenges in the years ahead. Generally, these responses were couched in terms of increasing the number of minority students and faculty at the college. Examples of such responses include:

- "Increasing the number of underrepresented faculty and students"
  (public university)
- "Increasing retention and success of minority students"
  (independent comprehensive institution)
- "Recruitment of minority students and faculty"
  (public two-year college)
- "Strengthening diversity on campus"
  (independent baccalaureate college)
- "Increasing our numbers of minority faculty and students"
  (independent university)
- "Finding ways of attracting more minority faculty and staff"
  (independent baccalaureate college)
- "Increased cultural diversity at student and faculty levels"
  (public university)

Issues related to *facilities and physical plant* were often mentioned, particularly by doctoral institutions. For the most part, the challenges were related to renovation and renewal of facilities rather than to construction. These responses included:

- "Renovation and redesign of a major academic complex"
  (independent university)
- "Multipurpose classroom space"
  (public comprehensive institution)
- "Development and maintenance of the physical plant"
  (independent baccalaureate college)
- "Physical plant deterioration"
  (public two-year college)
- "Deferred maintenance of facilities"
  (public university)
- "Deterioration of buildings"
  (public university)

Faculty concerns were cited as a major challenge by about one in four administrators. Salary and compensation issues were mentioned by only a few institutions. More frequently mentioned were issues related to faculty hiring or to faculty vitality and effectiveness. Among responses on faculty hiring issues were:

- "Finding qualified persons to fill faculty vacancies"
  (independent baccalaureate college)
- "Shrinking faculty applicant pools"
  (public comprehensive institution)
- "Attracting and retaining qualified faculty in shortage areas"
  (independent comprehensive institution)
- "Recruitment of new faculty"
  (independent university)
- "Replacements for retiring faculty and staff"
  (public two-year college)
- "Recruiting faculty in light of a shrinking pool"
  (independent baccalaureate college)

Issues of faculty effectiveness and vitality included the following examples:

- "Keeping first-rate faculty happy here"
  (public comprehensive institution)
- "Providing adequate professional development activities"
  (public baccalaureate college)
- "An aging faculty"
  (independent university)
- "Faculty development during a time of enrollment shifts"
  (public two-year college)
- "Assessment of faculty performance in light of student assessment"
  (independent baccalaureate college)

CONCLUSION

The general picture that emerges from this review of current practices on American college campuses is one of remarkable resilience.

- American colleges and universities have been successful in meeting their most dramatic challenge over the past decade, the prospect of dropping enrollments.
- They have actively brought about a great deal of change in the undergraduate curriculum, during a time when calls for curriculum reform and renewal have been numerous and vocal.
- A good many have begun to tackle issues of student assessment, a complex and controversial new departure for higher education institutions.
- Despite tight finances—including "steady-state" or declining revenues for some institutions—progress has been made in improving faculty salaries, in meeting the need for increased student aid from institutional sources, and in shifting budget allocations to meet such new needs as computerization.

What is clear, too, is the diversity of experiences among American colleges and universities. Regarding tuition, for example, a good many institutions have increased their tuition charges at levels that probably will not keep up with inflation, despite the fact that the average increases cited by national media are ahead of inflation.

Other important examples of diversity among American colleges and universities can be cited:

- Colleges differ in their recent experience with enrollment. Fully one-third had enrollment increases of 10 percent or more since 1980. During the same period, however, 1 in 4 institutions had enrollment decreases of 10 percent of more.
- Colleges have not shared equally in recent gains reported with respect to alumni giving, endowment income, or grant and contract activity. Only about half of colleges and universities received increased income from gifts and annual giving in the last year. Similarly, 4 in 10 institutions reported increased income from grants and contracts in the last year.
- Colleges vary in how they structure their requirements for general education. About 4 in 10 institutions have developed integrative courses, but others allow students to meet general education requirements by selecting from several course categories. One in four have developed upper-level general education requirements.

Survey results also show that college administrators are well aware of the key challenges they will face in the next few years. Fundamental concerns regarding program quality will be important, both for the college and for their various constituencies. At the same time, many administrators acknowledge that progress is needed on certain internal issues: improving the racial and ethnic diversity of students and faculty, renovating facilities, responding to technological change, and being successful in faculty hiring and staffing were among the issues on their agenda for the near future.

REFERENCES

Bennett, William J. *To Reclaim a Legacy: A Report on the Humanities in Higher Education*. Washington, D.C.: National Endowment for the Humanities, 1984.

Bowen, Howard R. and Jack H. Schuster. *American Professors: A National Resource Imperiled*. New York: Oxford University Press, 1986.

Carnegie Council on Policy Studies in Higher Education. *Three Thousand Futures: The Next Twenty Years for Higher Education*. San Francisco: Jossey-Bass, 1980.

Center for Education Statistics. "National Estimates of Higher Education Statistics: 1987." *Early Estimates*. Washington, D.C.: U.S. Department of Education, 1987.

_____. The *Condition of Education: 1987 Edition*. Washington, D.C.: U.S. Government Printing Office, 1987.

Council for Aid to Education. *Voluntary Support of Education: 1986–87*. New York: 1988.

Dougherty, R. M. and N. E. Barr. "Paying the Piper: ARL Libraries respond to skyrocketing journal subscription prices." *Journal of Academic Libraries*, March 1988.

El-Khawas, Elaine. *Campus Trends, 1984*. Washington, D.C.: American Council on Education, 1985.

_____. *Campus Trends, 1985*. Washington, D.C.: American Council on Education, 1985.

_____. *Campus Trends, 1986*. Washington, D.C.: American Council on Education, 1986.

_____. *Campus Trends, 1987*. Washington, D.C.: American Council on Education, 1987.

High School Graduates: Projections by State, 1986 to 2004. Boulder: Western Interstate Commission for Higher Education, 1988.

Lee, Barbara. "Faculty Trends and Projected Needs." *In College Faculty: Versatile Human Resources in a Period of Constraint*, edited by Roger G. Baldwin and Robert T. Blackburn. New Directions for Institutional Research, No. 40. San Francisco: Jossey-Bass, 1983.

National Institute of Education. *Involvement in Learning: Realizing the Potential of American Higher Education*. Washington, D.C.: U.S. Department of Education, 1984.

TABLE 1—Changes in Enrollment (FTE) Since 1980
(Percentage of Institutions Reporting Each Change)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Increase of:								
10 percent or more	34	38	38	22	14	45	26	29
5 to 9 percent	10	8	6	20	20	6	18	9
3 or 4 percent	6	4	7	6	12	5	7	6
1 or 2 percent	4	2	4	9	8	3	7	3
No Change	3	0	6	6	6	0	4	5
Decrease of:								
10 percent or more	25	30	21	20	10	24	17	28
5 to 9 percent	12	11	13	13	16	9	13	14
3 or 4 percent	2	3	1	1	7	5	4	1
1 or 2 percent	4	3	4	3	6	3	4	4

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 2A—Major Factors Affecting Enrollment Since 1980
(Percentage of Institutions Citing Each Factor)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Caps on enrollment, due to finances	8	12	2	4	18	16	10	1
Caps on enrollment, other decision	11	5	12	16	37	7	15	12
Budgetary constraints	22	26	16	16	30	31	23	14
Change in								
adult students	53	60	53	46	18	59	43	53
pool of potential applicants	71	70	74	68	63	63	66	79
graduate enrollment	37	0	24	52	51	0	41	34
transfer students	24	18	28	34	27	19	29	25
foreign students	17	14	18	19	31	16	19	17
student retention	61	64	66	52	44	60	52	66
Recruitment practices	69	62	84	65	65	63	62	76
Luck	33	40	28	23	22	40	20	33
Publicity about the institution	68	74	64	63	60	73	59	68
New testing/assessment requirements	17	19	16	15	18	26	20	10
Changes in curriculum	35	38	36	29	29	38	28	36
Changes in student services	24	23	30	19	10	26	18	24

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 2B—Major Factors Affecting Enrollment Since 1980
(Percentages "Yes" Among Those with Enrollment Increases)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Caps on enrollment, due to finances	9	15	3	2	18	17	6	2
Caps on enrollment, other decision	11	4	19	8	38	5	10	18
Budgetary constraints	21	24	16	17	33	29	16	15
Change in								
adult students	57	64	50	53	24	57	49	60
pool of potential applicants	63	60	68	69	48	55	65	71
graduate enrollment	36	0	30	40	57	0	38	35
transfer students	29	22	40	32	33	19	31	38
foreign students	15	7	22	19	43	9	15	23
student retention	73	67	91	67	60	58	69	91
Recruitment practices	82	79	93	72	77	72	70	96
Luck	38	45	34	19	29	45	21	38
Publicity about the institution	81	85	76	75	86	81	75	84
New testing/assessment requirements	17	16	23	15	13	19	16	16
Changes in curriculum	49	57	44	28	49	49	33	57
Changes in student services	32	39	29	20	20	41	14	32

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 2C—Major Factors Affecting Enrollment Since 1980
(Percentages "Yes" Among Those with Enrollment Decreases)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Caps on enrollment, due to finances	4	4	0	2	24	8	9	0
Caps on enrollment, other decision	6	2	3	15	38	3	15	5
Budgetary constraints	20	26	10	13	28	30	19	14
Change in								
adult students	48	50	56	39	12	54	39	47
pool of potential applicants	85	86	91	72	82	74	72	95
graduate enrollment	37	0	16	61	57	0	51	28
transfer students	19	12	22	36	38	16	26	19
foreign students	17	14	18	27	19	20	24	14
student retention	54	61	55	25	45	55	33	59
Recruitment practices	52	43	70	48	63	47	43	56
Luck	29	37	18	17	33	41	24	24
Publicity about the institution	53	58	44	49	44	59	45	51
New testing/assessment requirements	18	25	3	13	24	44	15	3
Changes in curriculum	21	19	27	28	0	23	17	21
Changes in student services	15	12	24	17	0	16	10	16

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 3—Changes in Enrollment, AY 87 vs. AY 88*
(Percentage of Institutions with Each Change)

	Total		2-year Colleges		Baccalaureate Colleges		Comprehensive Universities		Doctoral Universities		Public 2-year Institutions		Public 4-year Institutions		All Independent Institutions	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
Overall (headcount) enrollment	53	16	53	20	58	12	50	14	41	12	54	21	50	12	54	15
Total FTE enrollment	52	19	51	24	57	15	50	15	40	13	49	25	52	14	53	17
First-time freshmen	56	18	49	19	64	17	62	19	50	20	47	16	62	17	60	20
Full-time students	49	23	45	30	57	20	46	15	43	8	43	31	47	15	54	21
Part-time students	49	16	57	17	46	12	40	20	26	26	57	15	40	17	47	17
Students age 25 and older	41	8	48	9	38	5	34	12	16	11	49	10	29	8	40	7
Black students	23	10	22	8	21	9	30	13	18	18	18	10	23	14	27	8
Black males	23	12	21	11	28	9	25	15	13	25	18	13	20	18	29	8
Black females	24	12	22	9	27	17	28	12	23	14	19	9	23	12	29	14
Hispanic students	25	9	26	7	17	9	30	15	43	10	24	9	30	12	25	8
Asian students	23	7	15	8	21	8	40	4	44	10	11	8	36	7	26	8
Native American students	15	10	16	10	9	9	18	10	22	18	17	8	17	12	12	12
Average class size	19	13	18	14	21	16	23	11	13	5	19	15	23	11	19	13
Enrollment in non-credit remedial courses	26	8	35	7	14	8	19	9	7	9	40	10	15	12	17	4

*Responses for "increase," "decrease," and "no change" sum to 100 percent. Percentages for "no change" are not shown on the table.

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 4—Expected Changes in Enrollment, Next Five Years
(Percentage of Institutions Reporting Each Change)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Increase expected:								
10 percent or more	36	41	44	17	3	38	16	43
5 to 9 percent	19	22	16	18	7	22	22	15
3 or 4 percent	5	6	3	7	10	8	6	3
1 or 2 percent	11	8	12	16	21	11	15	10
No Change	13	11	14	19	21	12	17	13
Decrease expected:								
10 percent or more	5	5	5	1	9	2	6	6
5 to 9 percent	6	7	4	5	7	5	6	6
3 or 4 percent	2	1	1	10	5	1	7	2
1 or 2 percent	3	1	1	6	16	1	6	3

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 5—Changes in College Finances, FY 87 to FY 88*

(Percentage of Institutions with Each Change)

	Total		2-year Colleges		Baccalaureate Colleges		Comprehensive Universities		Doctoral Universities		Public 2-year Institutions		Public 4-year Institutions		All Independent Institutions	
	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease	Increase	Decrease
Institution's overall budget	79	10	70	14	90	6	84	6								
Budget for educational & general expenses	77	11	70	14	85	10	82	8	89	8	68	16	78	12	89	5
Budget for institutional student aid	63	8	49	11	82	8	68	3	88	7	66	15	75	15	87	7
Budget for instructional technology	46	9	41	7	50	13	47	6	72	7	48	14	54	9	78	4
Income from endowment	44	8	33	6	59	11	41	7	65	6	46	10	44	11	47	7
Income from gifts & alumni giving	51	8	33	8	63	10	67	5	67	14	33	8	36	12	55	7
Income from grants and contracts	44	12	38	10	43	17	47	10	84	8	28	7	58	10	64	8
Revenues from state and local government	43	15	45	16	29	13	55	12	81	7	43	11	51	9	41	14
Total federal student aid (excluding GSL)	35	21	34	23	43	17	27	27	58	16	57	18	67	18	19	11
Share of costs that students and parents pay	49	8	39	7	59	12	58	5	30	18	26	24	34	18	42	21
Institutional indebtedness	18	30	17	25	19	42	15	25	54	5	38	4	53	7	55	11
									27	16	10	31	10	22	26	32

*Responses for "increase," "decrease," and "no change" sum to 100 percent. Percentages for "no change" are not shown on the table.

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 6—Changes in the Share of Budget Required by Various Expenses*

(Percentage of Institutions with Each Change)

Total	Total		2-year Colleges		Baccalaureate Colleges		Comprehensive Universities		Doctoral Universities		Public 2-year Institutions		Public 4-year Institutions		All Independent Institutions	
	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller	Larger	Smaller
Faculty salaries	72	8	77	5	67	13	74	6	52	8	78	7	65	8	69	9
Books and periodicals	35	18	31	17	34	20	41	21	53	11	33	19	40	20	34	18
Computing equipment and operations	87	3	83	3	93	2	85	4	88	2	85	2	87	5	88	2
Instructional & research equipment	33	12	32	12	25	13	38	12	60	6	35	16	46	18	26	6
Construction of new facilities	31	20	30	23	35	12	26	27	38	16	34	28	20	27	34	10
Renovation & repair of existing facilities	45	14	47	15	40	10	50	17	46	19	48	17	37	20	47	9
Physical plant operations	40	19	50	13	31	21	27	30	30	40	47	16	28	32	38	17
Institutionally-funded student aid	54	6	42	4	71	10	55	6	58	6	35	5	34	13	78	4
Academic programs, undergraduate	40	8	45	5	31	14	43	7	35	11	40	6	40	16	40	6
Academic programs, graduate	29	13	0	0	26	9	28	19	42	8	0	0	35	15	25	11
Student support services	43	11	46	10	48	13	30	11	25	18	40	11	24	16	52	9
Admissions & recruitment	63	4	65	4	59	2	65	5	57	5	54	4	49	7	75	2
Development	49	5	42	8	57	4	49	2	70	3	36	10	48	6	61	2

*Responses for "larger," "smaller," and "no change" sum to 100 percent. Percentages for "no change" are not shown on the table.

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 7—Expected Tuition Increases, AY 89 and AY 90
(Percentage of Institutions at Each Level)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Expected tuition increase for 1988–89								
10 percent or higher	15	15	14	15	16	17	12	15
8–9 percent	12	8	14	19	17	5	8	19
6–7 percent	26	23	31	22	34	12	18	40
4–5 percent	20	17	28	16	21	22	26	17
3 percent or less	27	37	12	28	12	45	36	10
Expected tuition increase for 1989–90								
10 percent or higher	7	7	6	5	5	7	7	6
8–9 percent	12	8	13	22	18	7	6	19
6–7 percent	30	22	42	28	39	8	21	49
4–5 percent	30	30	32	28	26	35	40	23
3 percent or less	22	33	7	17	13	44	25	4

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 8—Administrator Views on Institutional Status
(Percentage of Administrators Giving Each Rating)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Percentage rating own institution as "Excellent" or "Very Good"								
General level of preparation of entering students	15	2	18	32	59	3	22	21
Job prospects for degree recipients	59	55	58	67	71	48	65	65
Ability to attract and hold good faculty	58	59	54	57	61	68	48	53
Adequacy of faculty compensation	33	38	20	40	36	47	30	23
Overall financial condition of the institution	44	46	42	44	44	52	36	41
Ability to attract good students	23	12	27	33	64	12	30	28
Ability to attract black students	16	17	11	18	18	16	19	14
Ability to attract Hispanic students	11	13	4	11	17	17	12	5
Ability to retain black students	15	16	10	18	24	14	21	14
Ability to retain Hispanic students	13	13	8	16	29	14	16	11
Percentage rating own institution as "Fair" or "Poor"								
General level of preparation of entering students	38	54	27	20	6	65	28	21
Job prospects for degree recipients	7	8	8	5	0	8	3	8
Ability to attract and hold good faculty	5	3	7	7	9	4	10	4
Adequacy of faculty compensation	35	30	50	27	31	24	41	42
Overall financial condition of the institution	20	19	19	22	23	17	30	17
Ability to attract good students	20	23	20	17	3	27	19	15
Ability to attract black students	62	55	78	57	51	54	58	70
Ability to attract Hispanic students	67	65	76	61	50	65	63	70
Ability to retain black students	43	39	49	46	46	44	45	41
Ability to retain Hispanic students	44	38	59	42	34	48	46	41

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 9—Patterns of Faculty Hiring
(Percentage of Institutions)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Full-time faculty were hired in:								
Tenure-track positions	81	76	75	94	99	77	92	78
Term or contract positions	77	70	78	85	97	75	83	75
Change in full-time faculty, AY 87 to AY 88:								
Net gain	50	49	47	53	53	48	48	51
No net change	30	29	32	29	27	29	31	30
Net loss	21	21	21	18	21	22	21	19
Change in part-time faculty, AY 87 to AY 88:								
Net gain	42	41	42	46	45	42	41	43
No net change	39	38	45	35	37	36	39	43
Net loss	18	22	12	19	18	22	19	15
Change in minority faculty, AY 87 to AY 88:								
Net gain	25	22	16	42	39	24	38	19
No net change	69	74	75	51	48	70	55	75
Net loss	6	4	8	6	12	6	7	6
Change in women faculty, AY 87 to AY 88:								
Net gain	42	40	39	45	61	50	43	35
No net change	49	52	50	50	22	44	48	54
Net loss	9	8	10	4	17	5	9	11

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 10—Current and Expected Shortages of Faculty, by Subject Area
(Percentage of Institutions that Agreed)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Has the quality of applicants for (full-time) faculty positions declined in the past year?	14	15	18	9	5	21	16	9
Have you had greater difficulty in getting top applicants to accept faculty positions in the past year?	37	35	40	47	22	35	46	35
Are you currently facing a shortage (i.e. unable to find qualified persons for vacant faculty positions)?								
Arts and humanities	5	10	1	1	6	7	2	5
Foreign languages	13	15	15	8	4	14	13	13
Social sciences	4	4	4	0	8	3	3	4
Biological sciences	8	7	11	3	14	9	8	7
Physical sciences	15	16	13	17	22	19	19	11
Computer science	59	50	62	65	86	55	72	55
Mathematics	32	36	27	28	30	41	39	21
Engineering	21	21	5	31	66	29	35	8
Health professions	24	34	19	12	17	40	16	16
Business	44	21	58	70	68	21	77	46
Education	6	2	11	8	2	3	12	5
Vocational-technical fields	12	22	1	7	2	30	7	0
Do you expect a shortage in the next five years?								
Arts and humanities	8	8	3	9	20	9	11	5
Foreign languages	20	22	17	17	22	24	17	18
Social sciences	3	3	2	3	12	4	3	3
Biological sciences	11	12	5	14	20	14	15	6
Physical sciences	20	15	19	29	40	14	33	19
Computer science	55	43	70	57	68	46	64	57
Mathematics	35	30	39	42	37	35	47	30
Engineering	24	26	11	26	56	35	33	10
Health professions	27	36	25	15	10	40	16	22
Business	39	27	47	54	50	21	63	42
Education	11	5	13	22	10	7	22	9
Vocational-technical fields	19	36	1	7	2	43	7	6

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 11—Percentage with Tenure, and Use of Part-Time Faculty

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Percentage of faculty with tenure:								
90 percent or more	8	21	0	2	0	24	1	0
80 to 89 percent	10	18	2	6	6	20	6	3
70 to 79 percent	15	8	7	21	25	9	22	12
60 to 69 percent	27	8	27	40	47	8	41	30
50 to 59 percent	13	4	22	17	14	3	17	17
30 to 49 percent	7	4	18	6	5	3	4	14
under 30 percent	4	5	5	2	3	5	2	4
Don't have a tenure system	17	31	19	7	0	28	5	19
Average percent tenured, among institutions with tenure	63	69	54	64	64	74	63	55
Percentage of institutions making extensive use of part-time faculty (for more then one-fourth of courses)	46	60	33	35	17	68	29	36

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 12—Faculty Retirement Patterns And Practices

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Average number of retirements in the last five years*	18	6	27	23	88	7	56	15
Average number of retirements in the next five years*	17	10	16	25	76	11	58	8
Percent of institutions with								
Incentives for early retirement	39	34	32	55	67	44	49	30
Phased retirement for faculty	18	9	22	27	50	12	29	18
Systematic faculty planning	34	22	45	42	55	22	38	41
Percentage of institutions currently revising their faculty retirement plans	22	13	30	30	32	18	21	25

*Based on those citing a number. One in four respondents did not provide an estimate.

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 13—Current Status of Student Assessment
(Percentage of Institutions that Agreed)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Most faculty would support the development of assessment procedures.	68	75	66	60	34	74	63	65
Our institution currently has assessment activities underway.	55	61	42	61	42	66	64	42
Discussions are taking place on whether to develop assessment procedures.	62	61	63	63	68	61	66	62
There is no clear sense of what to assess.	34	23	44	39	65	27	42	37
There are no good instruments suited to our programs.	32	26	40	33	54	22	34	40
Some form of assessment is likely to be introduced in the next few years.	74	77	69	77	63	77	78	70
Our state is requiring assessment procedures.	29	33	17	36	29	43	43	11
Our assessment activities have already provided new information on student learning.	31	37	23	31	17	42	33	21
Assessment results have been used for:								
reports to state boards or agencies	26	27	21	30	23	38	32	14
reports to deans, department chairs	40	43	38	36	30	55	46	25
reports to faculty	41	46	36	35	29	54	39	31
feedback to students	38	44	32	32	22	53	37	26
program or curriculum evaluation	44	53	32	41	30	56	43	36
curriculum changes	40	51	30	32	19	57	37	29
Our institution is developing its own instruments for student assessment.	45	48	36	55	38	47	55	39
Our institution is collaborating with other institutions on assessment activities.	27	30	19	32	32	39	41	12

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 14—Attitudes on Student Assessment
(Percentage of Administrators that Agreed)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Student assessment will significantly improve undergraduate education.	54	67	40	53	18	64	51	48
So far, attention to assessment has resulted mainly in new reporting requirements to the state.	31	29	24	43	45	34	43	23
Student assessment should be linked to institutional planning and budgeting.	69	76	64	72	39	73	65	69
All colleges and universities should develop and publish evidence of their institutional effectiveness.	53	66	39	46	38	67	55	41
As a condition of accreditation, colleges should be required to show evidence of institutional effectiveness.	77	86	76	63	45	83	71	75
States should require colleges to show evidence of institutional effectiveness.	47	59	34	43	25	58	55	35
Most campus officials have strong fears about misuse of effectiveness measures by external agencies.	78	75	81	79	84	77	83	77
Use of nationally standardized tests for purposes of student assessment risks distorting the educational process.	62	51	76	67	81	49	70	69

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 15—Areas of Student Learning being Assessed
(Percentage of Institutions that Agreed)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Assessment in place for:								
Basic college-level skills (e.g., English, math)	66	81	53	51	35	80	59	58
Knowledge in general education subjects	17	16	19	21	12	12	27	18
Knowledge in a major	21	16	25	29	16	7	28	28
Attainment of higher-order skills in:								
critical thinking	13	11	16	16	7	12	13	14
quantitative problem-solving	18	17	20	20	14	18	18	18
oral communication	16	19	16	12	8	19	11	16
writing	37	37	39	38	29	37	41	36
Changes in student values and attitudes	13	4	21	24	21	5	19	16
Long-term outcomes of graduates (e.g., 5, 10, or 15 years later)	22	19	27	18	27	21	22	22
Assessment planned for:								
Basic college-level skills (e.g., English, math)	16	9	26	23	14	11	25	16
Knowledge in general education subjects	34	33	35	37	26	36	43	28
Knowledge in a major	34	27	43	36	34	32	44	31
Attainment of higher-order skills in:								
critical thinking	36	36	36	40	26	44	41	29
quantitative problem-solving	31	31	30	37	21	39	37	24
oral communication	31	32	30	37	19	37	39	24
writing	30	30	29	33	24	36	36	22
Changes in student values and attitudes	24	25	23	26	19	27	25	21
Long-term outcomes of graduates (e.g., 5, 10, or 15 years later)	34	38	24	44	24	47	40	22

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 16A—Assessment Procedures Now In Use
(Percentage of Institutions with Each Procedure)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Minimum competency or "rising junior" tests	14	13	17	15	7	16	24	8
Comprehensive exams in the major	16	13	19	22	10	10	19	20
Use of external examiners	5	6	6	7	2	5	5	6
Demonstrated proficiency through performance or portfolio	32	33	32	26	33	24	25	40
Pre- and post-tests tied to:								
individual courses	24	32	13	18	15	28	19	23
major fields of study	8	11	4	8	8	9	11	7
general education	14	14	15	16	7	13	20	13
the entire curriculum	4	6	2	2	2	5	4	3
Use, for assessment, of								
GRE exams	12	2	14	34	28	3	34	9
SATs	23	24	21	25	25	22	25	23
ACTs	28	28	25	33	22	29	37	22
ACT-COMP	17	15	17	27	10	10	26	19
ETS's "Academic Profile"	7	2	12	13	6	3	17	5
Other nationally standardized test instruments	26	33	22	16	12	37	25	18
Tests developed by our faculty (other than traditional course exams)	26	35	16	20	17	30	27	23
Tests developed by the state	8	8	8	10	6	10	10	6

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 16B—Assessment Procedures that are Planned
(Percentage of Institutions with Each Procedure)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Minimum competency or "rising junior" tests	18	24	10	18	9	31	16	9
Comprehensive exams in the major	19	13	25	28	21	16	26	19
Use of external examiners	7	6	9	9	4	9	6	7
Demonstrated proficiency through performance or portfolio	18	20	14	21	9	24	18	13
Pre- and post-tests tied to:								
individual courses	16	24	7	11	4	29	9	8
major fields of study	20	23	16	18	8	25	17	16
general education	23	23	23	30	10	25	23	22
the entire curriculum	14	18	12	12	4	20	9	13
Use, for assessment, of								
GRE exams	3	0	1	11	6	0	9	1
SATs	3	4	0	5	2	6	4	0
ACTs	7	7	6	8	2	8	8	5
ACT-COMP	13	8	24	14	2	12	12	14
ETS's "Academic Profile"	9	7	10	15	6	11	15	6
Other nationally standardized test instruments	13	9	17	16	17	11	18	12
Tests developed by our faculty (other than traditional course exams)	21	17	23	32	15	20	26	19
Tests developed by the state	7	10	3	8	4	14	11	1

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 17—Curriculum Change Since 1980
(Percentage of Institutions with Each Change)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Curriculum review underway or recently completed?								
Yes, completed within the last few years	52	54	53	45	43	46	44	59
Yes, currently underway	42	41	38	47	50	47	47	35
How has your curriculum changed since 1980?								
New general education requirements	74	78	67	73	76	80	77	67
More rigorous standards for graduation	59	67	51	52	56	71	60	50
Increased coherence of general education requirements	68	70	63	69	74	72	73	63
Greater emphasis on:								
writing	85	85	84	87	85	85	88	84
the freshman year	59	57	59	63	56	52	60	63
foreign language proficiency	22	18	22	28	40	19	30	21
international matters	35	18	52	51	57	23	44	40
issues of science and technology	44	45	41	44	43	41	46	45
history and civilization	31	28	29	39	45	23	39	33
values and ethics	44	36	60	41	50	36	38	53
humanities courses	37	33	43	42	31	36	41	37
use of original texts	14	11	19	15	15	13	8	18
analytical or critical thinking	60	66	49	60	59	74	56	50
"active" modes of learning	49	57	42	43	37	58	39	47
class discussion	35	34	37	35	35	39	29	35
New ways to assess student progress and learning	58	71	44	50	35	72	55	49
Increased attention to multicultural diversity	47	40	49	59	63	40	57	48
New ways to involve students in:								
research	26	12	31	51	52	13	46	28
community service	37	27	48	45	39	27	41	42
internships	65	58	80	65	56	59	64	71

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 18—Admissions and Graduation Requirements
(Percentage of Institutions with Each Requirement)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Requirements for all students:								
Placement tests in:								
a. Mathematics	68	72	58	71	72	71	69	65
b. English	68	75	57	68	70	71	70	66
c. Writing	62	64	56	63	66	61	61	62
Foreign language study is required for:								
a. Admissions	7	0	8	18	28	0	14	9
b. Graduation	10	1	18	17	20	1	10	17
Students must meet institution-wide writing requirements before graduation	50	39	68	50	50	38	48	60
Students must meet state-mandated proficiency requirements before graduation	11	15	7	7	5	21	11	3
Students must complete a core amount of coursework in general education	87	81	99	91	77	79	89	93
Requirements for some students:								
Placement tests in:								
a. Mathematics	21	19	23	21	19	25	24	15
b. English	19	20	17	18	12	27	19	12
c. Writing	18	20	14	18	18	27	22	9
Foreign language study is required for:								
a. Admissions	8	5	6	14	24	7	10	8
b. Graduation	22	14	23	36	46	18	42	17
Students must meet institution-wide writing requirements before graduation	7	5	8	8	14	7	12	5
Students must meet state-mandated proficiency requirements before graduation	17	12	22	24	9	12	20	19
Students must complete a core amount of coursework in general education	9	15	0	4	9	15	5	5

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 19A—General Education Requirements
Required for All Undergraduates
(Percentage of Institutions, Among Those with General Education Requirements)*

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Core requirements include:								
Distribution requirements	85	79	92	86	96	75	84	91
Integrative "core" courses	46	44	46	51	40	42	50	46
A mix of core and distribution req.	57	51	61	65	57	53	63	57
Upper-division general education req.	44	0	46	41	41	0	42	45
Options for meeting requirements by departmental exams	71	65	80	74	61	75	77	67
Courses are required in:								
Mathematics	90	94	84	90	90	93	92	87
Computer science	43	43	44	39	48	37	39	48
Natural sciences	85	69	99	95	96	81	95	83
Social sciences	91	82	99	98	98	88	99	90
Fine arts	63	50	76	70	64	53	67	67
English/communications	95	96	95	94	84	95	94	96
Humanities	86	76	96	92	91	85	94	84
Western civilization	56	46	70	58	56	40	56	66
Non-western civilization	26	19	34	24	36	15	27	31
World civilization	33	22	44	36	43	24	37	36
Writing	82	77	84	86	89	83	88	79

*About 9 in 10 institutions have such requirements. Exact percentages of institutions are shown on table 18.

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 19B—General Education Requirements
Required for All or for Some Undergraduates
(Percentage of Institutions, Among Those with General Education Requirements)*

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Core requirements include:								
Distribution requirements	83	76	92	86	96	76	84	88
Integrative "core" courses	47	47	46	50	42	44	49	49
A mix of core and distribution req.	58	53	61	65	57	52	64	59
Upper-division general education req.	44	0	46	41	41	0	41	45
Options for meeting requirements by departmental exams	72	66	80	73	66	73	78	68
Courses are required in:								
Mathematics	91	95	84	90	89	94	91	88
Computer science	41	40	44	40	46	32	39	49
Natural sciences	86	73	99	95	96	83	95	84
Social sciences	92	85	99	98	98	90	99	91
Fine arts	62	51	76	69	62	53	66	67
English/communications	95	97	95	94	84	96	94	96
Humanities	85	76	96	90	92	81	92	85
Western civilization	54	43	70	58	56	40	56	63
Non-Western civilization	24	16	34	24	36	13	27	30
World civilization	31	20	44	36	45	22	37	34
Writing	82	79	84	84	88	83	86	80

*About 9 in 10 institutions have such requirements. Exact percentages of institutions are shown on table 18.

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 20—Important Challenges in the Next Five Years
(Percentage of Administrators Citing Each Group of Challenges)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Financial issues	55	50	60	55	73	50	48	61
Enrollment issues	62	66	65	50	40	52	46	75
Quality issues	68	71	65	76	48	74	70	64
Faculty issues	24	19	28	35	25	26	34	20
Diversity	8	3	7	22	19	4	19	7
Facilities	14	13	15	12	24	9	12	18
All other	21	28	13	12	20	29	16	16

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

TABLE 21—Important Challenges in the Next Five Years: Subcategories
(Percentage of Administrators Citing Each Group of Challenges)

	Total	2-year Colleges	Baccalaureate Colleges	Comprehensive Universities	Doctoral Universities	Public 2-year Institutions	Public 4-year Institutions	All Independent Institutions
Adequate finances	43	41	40	47	63	45	46	41
Fund-raising	13	9	21	13	14	5	6	22
Maintain enrollment	52	58	49	45	36	40	39	66
Enrollment growth	12	13	16	5	4	13	7	13
Assessment	18	18	20	19	4	22	15	16
Maintain quality	17	17	19	17	9	13	18	20
Strengthen curriculum	35	36	27	45	33	31	40	35
Serve new needs/populations	19	22	20	14	8	33	17	10
Effective faculty	22	17	28	29	15	22	27	19
Diversity	8	3	7	22	19	4	19	7
Facilities and technologies	21	26	15	15	26	17	13	27
State and regional issues	9	10	8	7	12	14	9	5
All other	5	6	5	4	4	9	5	3

Source: *Campus Trends, 1988*, American Council on Education.
Weighted survey data (80 percent response) received from 367 institutions (including 131 two-year colleges, 67 baccalaureate colleges, 105 comprehensive universities, and 64 doctoral institutions).

APPENDIX A: SURVEY QUESTIONNAIRE

Higher Education Panel Survey Number 77

CAMPUS TRENDS, 1988

This questionnaire asks a series of general questions about policies and practices at your institution.

Please circle an answer for each question. If not applicable, please write N/A. All questions refer to 1987–88.

I. ENROLLMENT AND FINANCES

A. How did your institution's enrollment change for 1987–88 compared to 1986–87:

	Increase (2% or more)	No Change	Decrease (2% or more)
Overall (headcount) enrollment	3	2	1
Total FTE enrollment	3	2	1
First-time freshmen	3	2	1
Full-time students	3	2	1
Part-time students	3	2	1
Students age 25 and older	3	2	1
Black students	3	2	1
Black males	3	2	1
Black females	3	2	1
Hispanic students	3	2	1
Asian students	3	2	1
Native American students	3	2	1
Average class size	3	2	1
Enrollment in non-credit remedial courses	3	2	1

B. How has your enrollment (FTE) changed **since 1980?** What enrollment change do you expect in the **next five years?**

Change since 1980 + _____ % or – _____ %

Change, next five years + _____ % or – _____ %

C. What are the major factors explaining your enrollment pattern since 1980?

	Major Factor? Yes	No
Caps on enrollment, due to finances	2	1
Caps on enrollment, other decision	2	1
Budgetary constraints	2	1
Change in		
adult students	2	1
pool of potential applicants	2	1
graduate enrollment	2	1
transfer students	2	1
foreign students	2	1
student retention	2	1
Recruitment practices	2	1
Luck	2	1
Publicity about the institution	2	1
New testing/assessment requirements	2	1
Changes in curriculum	2	1
Changes in student services	2	1

D. What is your best guess about your college's level of tuition increase for 1988–89 and 1989–90?

	1988–89	1989–90
10 percent or higher	5	5
8–9 percent	4	4
6–7 percent	3	3
4–5 percent	2	2
3 percent or less	1	1

E. How did your institution's finances change for 1987–88 compared to 1986–87?

	Increase	No Change	Decrease
Institution's overall budget	3	2	1
Budget for educational & general expenses	3	2	1
Budget for institutional student aid	3	2	1
Budget for instructional technology	3	2	1
Income from endowment	3	2	1
Income from gifts & alumni giving	3	2	1
Income from grants and contracts	3	2	1
Revenues from state and local government	3	2	1
Total federal student aid (excluding GSL)	3	2	1
Share of costs that students and parents pay	3	2	1
Institutional indebtedness	3	2	1

F. Which of the following have taken a larger or smaller share of the annual budget since 1980?

	Larger Share	No Change	Smaller Share
Faculty salaries	3	2	1
Books and periodicals	3	2	1
Computing equipment and operations	3	2	1
Instructional & research equipment	3	2	1
Construction of new facilities	3	2	1
Renovation & repair of existing facilities	3	2	1
Physical plant operations	3	2	1
Institutionally-funded student aid	3	2	1
Academic programs, undergraduate	3	2	1
Academic programs, graduate	3	2	1
Student support services	3	2	1
Admissions & recruitment	3	2	1
Development	3	2	1

II. FACULTY

A. Were any (new) full-time faculty hired for academic year 1987–88 in:

	Yes	No
Tenure-track positions	2	1
Term or contract positions	2	1

B. Compared to 1986–87, did your institution have any **net** change in the number of:

	Net Gain	No Net Change	Net Loss
Full-time faculty	3	2	1
Part-time faculty	3	2	1
Minority faculty	3	2	1
Women faculty	3	2	1

C. What percentage of full-time faculty hold tenure?

_____ % Do not have a tenure system _____

D. What was your total number of faculty for 1987–88?

Headcount _____ Full-time-equivalent _____

E. How many of your full-time faculty retired in the **last five years**?

Number _____ Don't know _____

F. In your estimate, how many of your full-time faculty will retire in the **next five years**?

Number _____ Don't know _____

G. Does your institution have:	Yes	No
Incentives for early retirement?	2	1
Phased retirement for faculty?	2	1
Systematic faculty planning (e.g., expected changes in hiring, tenure rates, retirements)?	2	1
H. Are you currently revising your faculty retirement plan?	2	1
I. Are you currently making extensive use of part-time faculty (i.e., for more than one-fourth of courses)?	2	1
J. Has the quality of applicants for (full-time) faculty positions **declined** in the past year?	2	1
K. Have you had greater difficulty in getting top applicants to accept faculty positions in the past year?	2	1

L. In the following teaching areas, are you **currently** facing a shortage (i.e. unable to find qualified persons for vacant faculty positions)? In which areas do you **expect** a shortage in the **next five years**? (Circle all that apply)

	Current shortage?	Expected shortage?
1. Arts and humanities	2	2
2. Foreign languages	2	2
3. Social sciences	2	2
4. Biological sciences	2	2
5. Physical sciences	2	2
6. Computer science	2	2
7. Mathematics	2	2
8. Engineering	2	2
9. Health professions	2	2
10. Business	2	2
11. Education	2	2
12. Vocational-technical fields	2	2

III. INSTITUTIONAL STATUS

A. Please rate your institution on each of the following:	Excellent	Very Good	Good	Fair	Poor
General level of preparation of entering students	5	4	3	2	1
Job prospects for degree recipients	5	4	3	2	1
Ability to attract and hold good faculty	5	4	3	2	1
Adequacy of faculty compensation	5	4	3	2	1
Overall financial condition of the institution	5	4	3	2	1
Ability to attract good students	5	4	3	2	1
Ability to attract black students	5	4	3	2	1
Ability to attract Hispanic students	5	4	3	2	1
Ability to retain black students	5	4	3	2	1
Ability to retain Hispanic students	5	4	3	2	1

IV. CURRICULUM

A. Is a review of curriculum underway or has one recently been completed?

3 Yes, completed within the last few years
2 Yes, currently underway
1 No

B. How has your curriculum changed since 1980?	Yes	No
New general education requirements	2	1
More rigorous standards for graduation	2	1
Increased coherence of general education requirements	2	1
Greater emphasis on:		
writing	2	1
the freshman year	2	1
foreign language proficiency	2	1
international matters	2	1
issues of science and technology	2	1
history and civilization	2	1
values and ethics	2	1
humanities courses	2	1
use of original texts	2	1
analytical or critical thinking	2	1
"active" modes of learning	2	1
class discussion	2	1
New ways to assess student progress and learning	2	1
Increased attention to multicultural diversity	2	1
New ways to involve students in:		
research	2	1
community service	2	1
internships	2	1

C. Which of the following are required (for undergraduates)?

	Required for all students	Required for some students	Not Required
1. Entering students must take placement tests or otherwise meet requirements in			
a. Mathematics	3	2	1
b. English	3	2	1
c. Writing	3	2	1
2. Foreign language study is required for:			
a. Admissions	3	2	1
b. Graduation	3	2	1
3. Students must meet institution-wide writing requirements before graduation	3	2	1
4. Students must meet state-mandated proficiency requirements before graduation	3	2	1
5. Students must complete a core amount of coursework in general education	3	2	1

a. If yes, do these requirements include:	Yes	No
Distribution requirements	2	1
Integrative "core" courses	2	1
A mix of core and distribution requirements	2	1
Upper-division general education requirements	2	1
Options for meeting requirements by departmental (or other) exams (e.g., CLEP, AP, ACE credit recommendations)	2	1

b. If yes, do these requirements include coursework in:	Yes	No
Mathematics	2	1
Computer science	2	1
Natural sciences	2	1
Social sciences	2	1
Fine arts	2	1
English/communications	2	1
Humanities	2	1
Western civilization	2	1
Non-western civilization	2	1
World civilization	2	1
Writing	2	1

V. STUDENT ASSESSMENT

A. New methods of assessing student learning (other than traditional end-of-course grading) are being discussed currently. Which of the following is true of your institution's status on assessment of student learning:

	Yes	No
Most faculty would support the development of assessment procedures.	2	1
Our institution currently has assessment activities underway.	2	1
Discussions are taking place on whether to develop assessment procedures.	2	1
There is no clear sense of what to assess.	2	1
There are no good instruments suited to our programs.	2	1
Some form of assessment is likely to be introduced in the next few years.	2	1
Our state is requiring assessment procedures.	2	1
Our assessment activities have already provided new information on student learning.	2	1
Assessment results have been used for:		
reports to state boards or agencies	2	1
reports to deans, department chairs	2	1
reports to faculty	2	1
feedback to students	2	1
program or curriculum evaluation	2	1
curriculum changes	2	1
Our institution is developing its own instruments for student assessment.	2	1
Our institution is collaborating with other institutions on assessment activities.	2	1

B. Which of the following areas of student learning are being assessed at your institution:

	In Place	Planned	No
Basic college-level skills (e.g., English, math)	3	2	1
Knowledge in general education subjects	3	2	1
Knowledge in a major	3	2	1
Attainment of higher-order skills in:			
critical thinking	3	2	1
quantitative problem-solving	3	2	1
oral communication	3	2	1
writing	3	2	1
Changes in student values and attitudes	3	2	1
Long-term outcomes of graduates (e.g., 5, 10, or 15 years later)	3	2	1

C. Which of the following are now in use, or planned, to assess student learning at your institution?

	In Use	Planned	No
Minimum competency or "rising junior" tests	3	2	1
Comprehensive exams in the major	3	2	1
Use of external examiners	3	2	1
Demonstrated proficiency through performance or portfolio	3	2	1
Pre- and post-tests tied to:			
individual courses	3	2	1
major fields of study	3	2	1
general education	3	2	1
the entire curriculum	3	2	1
Use, for assessment, of			
GRE exams	3	2	1
SATs	3	2	1
ACTs	3	2	1
ACT-COMP	3	2	1
ETS's "Academic Profile"	3	2	1
Other nationally standardized test instruments	3	2	1
Tests developed by our faculty (other than traditional course exams)	3	2	1
Tests developed by the state	3	2	1

D. Please indicate your own views on each of the following:

	Agree	Disagree	Uncertain
Student assessment will significantly improve undergraduate education.	3	2	1
So far, attention to assessment has resulted mainly in new reporting requirements to the state.	3	2	1
Student assessment should be linked to institutional planning and budgeting.	3	2	1
All colleges and universities should develop and publish evidence of their institutional effectiveness.	3	2	1
As condition of accreditation, colleges should be required to show evidence of institutional effectiveness.	3	2	1
States should require colleges to show evidence of institutional effectiveness.	3	2	1
Most campus officials have strong fears about misuse of effectiveness measures by external agencies.	3	2	1
Use of nationally standardized tests for purposes of student assessment risks distorting the educational process.	3	2	1

VI. CHALLENGES

What are the *three* most important challenges facing your institution in the **next five years**?

Thank you for your cooperation.

Please return this form by **March 11, 1988,** to:

Higher Education Panel
American Council on Education
One Dupont Circle, N.W.
Washington D.C. 20036

Please keep a copy of this survey for your records.

Name of Respondent _____

Title _____

Department _____

Telephone ___( )_____

APPENDIX B: TECHNICAL NOTES

This survey was conducted through the Higher Education Panel, part of an ongoing survey research program created in 1971 by the American Council on Education.

The Panel is a disproportionate stratified sample of 1,040 colleges and universities, divided into two half-samples of 520 institutions each. The sample was drawn from the more than 3,200 institutions listed in the *Education Directory, Colleges and Universities* issued by the U.S. Department of Education. The Panel's stratification design (Table B-1) is based primarily upon institution type, control, and size. For any given survey, either the entire Panel, a half-sample or an appropriate subgroup is used.

The sample for this study consisted of 456 institutions in one of the half-samples, excluding specialized institutions (e.g., rabbinical seminaries and schools of art) and institutions that offer no undergraduate instruction. The same half-sample has been used in all *Campus Trends* surveys.

The questionnaire (see Appendix A) was mailed on February 8, 1988 with the request that it be completed by the academic vice-president. By mid-June 367 responses were received (80 percent of those surveyed). Actual respondents included: provosts, deans, or academic vice-presidents, 53 percent; associate deans or associate provosts, 12 percent; presidents, 7 percent; and other, 28 percent.

Data from responding institutions were statistically adjusted to be representative of the 2,618 non-specialized colleges and universities in the U.S. that offer undergraduate instruction. The weighting technique adjusts the data for institutional nonresponse within each stratification cell.

Table B-2 shows response rates by institutional categories. Response rates for independent colleges were lower than average; the lowest rate of response was for independent two-year institutions, at 62 percent.

TABLE B2—Response Rates by Institutional Categories
(In percentages)

Control and Type of Institution	Response Rate
Total	80
Control	
Public	83
Independent	76
Type and Control	
Public Doctoral University	85
Independent Doctoral University	69
Public Comprehensive University	84
Independent Comprehensive University	92
Public Baccalaureate	86
Independent Baccalaureate	75
Public Two-Year	81
Independent Two-Year	62
Enrollment Size (FTE)	
Less than 1,000	67
1,000 to 4,999	86
5,000 to 9,999	81
10,000 + above	82

TABLE B-1—Stratification Design

ell	Type of Institution	Enrollment	Population	Sample	Respondents
	Total		2,618	456	357
	Large public doctorate-granting	a	104	52	44
	Large independent doctorate-granting	a	58	29	20
	Large public comprehensive	a	92	46	38
	Large independent comprehensive	a	26	12	10
	Large public two-year	a	43	20	17
	Public comprehensive	5,500–8,999	56	18	14
	Public comprehensive	<5,500	108	22	20
	Independent comprehensive	<9,000	126	24	23
	Public baccalaureate	<9,000	127	22	19
	Independent baccalaureate	1,350–8,999	166	28	24
	Independent baccalaureate	<1,350	446	38	24
	Public 2-year academic/comprehensive	6,000–8,999	55	18	15
	Public 2-year academic/comprehensive	4,000–5,999	72	18	15
	Public 2-year academic/comprehensive	2,000–3,999	155	24	18
	Public 2-year academic/comprehensive	<2,000	332	25	20
	Independent 2-year academic/comprehensive	<9,000	129	13	9
	Public two-year occupational	2,500–8,999	63	16	15
	Public two-year occupational	<2,500	221	22	16
	Independent two-year occupational	<9,000	239	11	6

stitutions that meet one or more of the three following criteria: (a) total full-time equivalent (FTE) 1981 enrollment greater than 8,999; (b) FTE 81 graduate enrollment greater than 749; (c) FY 1979 educational and general expenditures of $35 million or more.

ACE BOARD OF DIRECTORS 1988

Executive Committee

Judith S. Eaton, President, Community College of Philadelphia, *Chair*

James J. Whalen, President, Ithaca College, *Vice Chair*

Frank H. T. Rhodes, President, Cornell University, *Immediate Past Chair*

Robert L. Albright, President, Johnson C. Smith University, *Secretary*

Robert H. Atwell, American Council on Education, *President*

Edward T. Foote II, President, University of Miami

Alfredo G. de los Santos Jr., Vice Chancellor for Educational Development, Maricopa Community Colleges

Hoke L. Smith, President, Towson State University

Class of 1988

Robert L. Albright, President, Johnson C. Smith University

David W. Breneman, President, Kalamazoo College

Edward T. Foote II, President, University of Miami

William P. Gerberding, President, University of Washington

Frank H. T. Rhodes, President, Cornell University

Bruce E. Whitaker, President, Chowan College

Class of 1989

Magdalen Coughlin, CSJ, President, Mount St. Mary's College

Alfredo G. de los Santos Jr., Vice Chancellor for Educational Development, Maricopa Community Colleges

Judith S. Eaton, President, Community College of Philadelphia

James O. Freedman, President, Dartmouth College

William H. Harris, President, Texas Southern University

Stanley O. Ikenberry, President, University of Illinois

Betty Lentz Siegel, President, Kennesaw State College

Class of 1990

Vera King Farris, President, Stockton State College

E. Gordon Gee, President, University of Colorado

James A. Hefner, President, Jackson State University

Anita Pampusch, President, College of St. Catherine

Donald G. Phelps, Chancellor, Los Angeles Community College District

Hoke L. Smith, President, Towson State University

Cynthia H. Tyson, President, Mary Baldwin College

James J. Whalen, President, Ithaca College

Association Representatives

Lawrence W. Tyree, Chancellor, Dallas County Community College, *American Association of Community and Junior Colleges*

Alice Chandler, President, State University College at New Paltz, *American Association of State Colleges and Universities*

James H. Daughdrill, Jr., President, Rhodes College *Association of American Colleges*

Gene A. Budig, Chancellor, University of Kansas, *Association of American Universities*

Francis J. Kerins, President, Carroll College (Montana), *Association of Catholic Colleges and Universities*

David M. Lascell, Esq., Nixon, Hargrave, Devans & Doyle, *Association of Governing Boards of Universities and Colleges*

Michael G. Morrison, SJ, President, Creighton University, *Association of Jesuit Colleges and Universities*

Charles H. Oestreich, President, Texas Lutheran College, *Council of Independent Colleges*

William P. Hytche, Chancellor, University of Maryland, Eastern Shore, *National Association for Equal Opportunity in Higher Education*

Joab M. Lesesne, Jr., President, Wofford College, *National Association of Independent Colleges and Universities*

John A. DiBiaggio, President, Michigan State University, *National Association of State Universities and Land-Grant Colleges*

Alice Gallin, OSU, Executive Director, Association of Catholic Colleges and Universities, *Washington Higher Education Secretariat*

9/1/88

Other Recent Reports from the Division of Policy Analysis and Research American Council on Education

Unless otherwise noted, reports are available at $5.00/copy for ACE members or $8.00/copy for non-members from: Division of Policy Analysis and Research, American Council on Education, One Dupont Circle, N.W. Washington, D.C. 20036. Prepaid orders only; no purchase orders, please.

Hexter, Holly and El-Khawas, Elaine. *Joining Forces: The Military's Impact on College Enrollment.* September 1988 (37 pp.)

Andersen, Charles J. *International Studies for Undergraduates, 1987: Operations and Opinions.* Higher Education Panel Report No. 76, August 1988 (42 pp.)

El-Khawas, Elaine; Carter, Deborah; and Ottinger, Cecilia, Editors. *Community College Fact Book.* 1988 (135 pp.). Order from Macmillan Publishing Company, Front and Brown Streets, Riverside, N.J. 08075 $39.00 prepaid.

HEATH Resource Center. *How to Choose a College: Guide for the Student with a Disability.* April 1988. (16 pp.) Order from HEATH Resource Center toll-free at (800) 544-3284 or 939-9320 in the Washington, D.C. metro area.

Henderson, Cathy. *College Debts of Recent Graduates.* December 1987 (19 pp.)

Hartman, Rhona C. Editor. *Community Colleges and Students with Disabilities—A Directory of Services and Programs.* October 1987 (41 pp.). Order from HEATH Resource Center toll-free at (800) 544-3284 or 939-9320 in the Washington, D.C. metro area.

El-Khawas, Elaine. *Campus Trends, 1987.* Higher Education Panel Report No. 75. August 1987 (36 pp.)

Rossmann, Jack E. and El-Khawas, Elaine. *Thinking About Assessment: Perspectives for Presidents and Chief Academic Officers.* June 1987 (22 pp.). Single copies free, $1.00 a copy/two or more copies, prepaid.

Davie, Ann. *HEATH Resource Directory, 1987.* Order from HEATH Resource Center toll-free at (800) 544-3284 or 939-9320 in the Washington, D.C. metro area.

Andersen, Charles J. *Survey of Accreditation Issues, 1986.* Higher Education Panel Report No. 74, April 1987 (26 pp.)

Ottinger, Cecilia, Editor. *Higher Education Today: Facts in Brief.* January 1987 (58 pp.)

Hexter, Holly and Andersen, Charles J. *Admission and Credit Policies for Adult Learners.* Higher Education Panel Report No. 72, December 1986 (25 pp.)

El-Khawas, Elaine. *Campus Trends, 1986.* Higher Education Panel Report No. 73, August 1986 (25 pp.)

Petrovich, Janice and Hexter, Holly. *Campus Approaches to Faculty Retraining.* February 1986 (51 pp.)

HEATH Resource Center. *College Freshmen With Disabilities Preparing for Employment.* 1986 (11 pp.). Order from HEATH Resource Center toll-free at (800) 544-3284 or 939-9320 in the Washington, D.C. metro area.

Andersen, Charles J. *Student Financial Aid to Full-Time Undergraduates, Fall 1984.* Higher Education Panel Report No. 68, January 1986 (23 pp.)

Henderson, Cathy. *Forecasting College Cost Through 1988–89.* Policy Brief. January 1986 (6 pp.) Free.

Miller, Scott E. *Financial Aid for Community College Students: Unique Needs and Scarce Resources.* December 1985 (17 pp.) Free.

Holmstrom, Engin Inel. *Recent Changes in Teacher Education Programs.* Higher Education Panel Report No. 67, November 1985 (32 pp.)

Suniewick, Nancy and El-Khawas, Elaine. *General Education Requirements in the Humanities.* Higher Education Panel Report No. 66, October 1985 (25 pp.)

Andersen, Charles J. *Conditions Affecting College and University Financial Strength.* Higher Education Panel Report No. 63, October 1985 (34 pp.)

Miller, Scott E. and Hexter, Holly. *How Low Income Families Pay for College.* July 1985 (32 pp.)

Miller, Scott E. and Hexter, Holly. *How Middle Income Families Pay for College.* July 1985 (38 pp.)

El-Khawas, Elaine and McKenna, Barbara. *Perspective: College Actions on South African Investments.* May 1985 (39 pp.)

Lee, Valerie. *Access to Higher Education: The Experience of Blacks, Hispanics and Low Socio-Economic Status Whites.* May 1985 (55 pp.)

El-Khawas, Elaine. *Campus Trends, 1984.* Higher Education Panel Report No. 65, February 1985 (19 pp.)

Andersen, Charles, J. *Full-time Humanities Faculty, Fall 1982.* Higher Education Panel Report, No. 61, August 1984 (56 pp.)

Campus Trends, 1988, HEP Report No. 77